

O'Bryen, Barbara

---

**From:** Switzer, Juliet  
**Sent:** Thursday, October 14, 2004 2:10 PM  
**To:** O'Bryen, Barbara  
**Subject:** RE: alignment

sorry. seq id no 58 of serial number 10077176.  
thanks.

-----Original Message-----

**From:** O'Bryen, Barbara  
**Sent:** Thursday, October 14, 2004 2:10 PM  
**To:** Switzer, Juliet  
**Subject:** RE: alignment

It would be easier for me to do this if I had & seq id # & serial number.

-----Original Message-----

**From:** Switzer, Juliet  
**Sent:** Thursday, October 14, 2004 2:02 PM  
**To:** O'Bryen, Barbara  
**Subject:** alignment

Hi barb.

Will you please align nucleotides 252-1430 against GenBank X60012?  
Will you let me know when you've done it- I'll come pick up the print out.  
Thanks.  
Juliet

This Page Blank (uspto)



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/isolate="Burkitts lymphoma cell line"
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/cell_line="IARC/BL2"
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/gene="p53"
1..1179
/mRNA
/gene="p53"
/note="cDNA"
/evidence=experimental
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/protein_id="CAA42627.1"
/db_xref="GI:506437"
/db_xref="SWISS-PROT:P04637"
/translation="MEEQSDSEVPPLSQETFDLWKLPPENVLSPLPSQAMDDLM
LSPDIEQMFTDPGEDAPRPAEAPVAPAAFPAPAPAFNWLSSSVPSOKT
YQSFGRLGFLHS TAKS VTCYTPALNMFCOLAKTCVOLWVDSTFPPGGTRVRAM
AIYKQSGHMTVEVRCPHERCSDGLAPPOLLIRVEGNLRVEYLDDRRNTFRHVCA
PYEPVGSDCTTHYNWCNSCMGMNRRLITITLEDSSGNLLGRNSEPVRYCA
CPGRDRTEENLRKKGRPHBELPGSKRALPNNTSSSPQPKKPLDG EYFTLQIRG
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D"
?
? ORIGIN
?
? X60012 Length: 1179 October 14, 2004 16:28 Type: N Check: 2359 ..
x60012

Query Match 2.3%; Score 26.6; DB 1; Length 1179;
Best Local Similarity 51.2%; Pred. No. 0;
Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;

QY 174 AGGTC CCGATGAAGCTCCGAAATGCCAGAGCTGCTCCCCCGCTGGCCCCTGCACGACC 233
Db 294 AGGCACAGAAGATCACAGGGGCCAGAGGGGGCTGTGTGACGGGGCCGCGGTGTAGGAC 235
QY 234 AGCTCCCTACCGGGGGCCCTGTGCACACAGCCCTCTTGCGCCCTGTCACTCTCTGTC 293
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QY 294 T 294
Db 174 T 174

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Search completed: October 14, 2004, 16:31:11  
Job time : 1 secs

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RESULT 2
x60012/c
; TOIG of: x60012 check: 2359 from: 1 to: 1179
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; LOCUS HSP33003 1179 bp mRNA linear PRI 23-JUN-1994
; DEFINITION Human mRNA for mutated p53 transformation suppressor gene.
; ACCESSION X60012
; VERSION X60012.1 GI:506436
; KEYWORDS p53 gene; p53 protein.
; SOURCE Homo sapiens (human)
; ORGANISM Homo sapiens
;
; Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
;
; REFERENCE 1 (bases 1 to 1179)
; AUTHORS Farrell,P.J., Allan,G.J., Shanahan,P., Vousden,K.H. and Crook,T.
; TITLE p53 is frequently mutated in Burkitt's lymphoma cell lines
; JOURNAL EMBO J. 10 (10), 2879-2887 (1991)
; MEDLINE 92007731
; PUBMED 1915267
;
; REFERENCE 2 (bases 1 to 1179)
; AUTHORS Farrell,P.J.
; TITLE Direct Submission
; JOURNAL Submitted (03-JUN-1991) P.J. Farrell, Ludwig Inst for Cancer Res,
; St Mary's Hospital Med School, Norfolk Place, London W2 1PG, UK
; COMMENT mutated p53 transformation suppressor gene.
; FEATURES
; Location/Qualifiers
; 1..1179
; /organism="Homo sapiens"
; /mol_type="mRNA"
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; source
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;

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RESULT 1  
US-08-184-009-215

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Db 481 GCCATCTACAGCAGTACAGACATGAGGAGTTGTGAGCGCTGCCCGCCACCATGAG 540
QY 541 CGCTCTCAGATAGCATGGTCTGCGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 600
Db 541 CGCTCTCAGATAGCATGGTCTGCGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 600
QY 601 TTGCGTGTGAGTATTGATGACAGAAACACTTTTCACATAGTGTGGTGCCTAT 660
Db 601 TTGCGTGTGAGTATTGATGACAGAAACACTTTTCACATAGTGTGGTGCCTAT 660
QY 661 GAGCGCTGAGTGTGCTGACGTACACATCCACTACATGTAACAGT 720
Db 661 GAGCGCTGAGTGTGCTGACGTACACATCCACTACATGTAACAGT 720
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Db 781 AGTGTATCTACTGGGACGAGACAGCTTTGAGTGCCTGTTGCTGCTGCGGAGA 840
QY 841 GAGCGCGCACAGAGAGAGATCTCCGCAAGAAAGGAGGAGCTCACCACGAGTGCCT 900
Db 841 GAGCGCGCACAGAGAGAGATCTCCGCAAGAAAGGAGGAGCTCACCACGAGTGCCT 900
QY 901 CCAGGAGACCTAAGCGACCTGCGCAACACACAGCTCTCTTCCCGAGCCAAAGAG 960
Db 901 CCAGGAGACCTAAGCGACCTGCGCAACACACAGCTCTCTTCCCGAGCCAAAGAG 960
QY 961 AAACCACTGGATGGAATATTTACGCTTCAGATCCGCGGCGTCCAGCTTCGAGATG 1020
Db 961 AAACCACTGGATGGAATATTTACGCTTCAGATCCGCGGCGTCCAGCTTCGAGATG 1020
QY 1021 TTCCGAGAGCTGAATGAGGCTTTGGAACCTCAAGATGCCCGAGGCTGGGAGGAGCGG 1080
Db 1021 TTCCGAGAGCTGAATGAGGCTTTGGAACCTCAAGATGCCCGAGGCTGGGAGGAGCGG 1080
QY 1081 GGGAGAGGCTCACTCCAGCCACCTGAAGTCCAAAAGGCTCAGTCTACCTCCGCCAT 1140
Db 1081 GGGAGAGGCTCACTCCAGCCACCTGAAGTCCAAAAGGCTCAGTCTACCTCCGCCAT 1140
QY 1141 AAAAATCATGTTCAAGACAGAGGCGCTGACTCAGAC 1179
Db 1141 AAAAATCATGTTCAAGACAGAGGCGCTGACTCAGAC 1179
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RESULT 2  
US-08-458-356-215  
; Sequence 215, Application US/08458356  
; Patent No. 5942235  
; GENERAL INFORMATION:  
; APPLICANT: Paoletti, Enzo  
; APPLICANT: Tartaglia, James  
; APPLICANT: Cox, William I.  
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY  
; NUMBER OF SEQUENCES: 217  
; CORRESPONDENCE ADDRESS:  
; STREET: 530 Fifth Avenue  
; CITY: New York  
; STATE: NY  
; COUNTRY: USA  
; ZIP: 10036  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible

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; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/458,356
; FILING DATE: 02-JUN-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/184,009
; FILING DATE: 19-JAN-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTMS
; INFORMATION FOR SEQ ID NO: 215:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1182 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; US-08-458-356-215

Query Match 100.0%; Score 1179; DB 1; Length 1182;
Best Local Similarity 100.0%; Pred. No. 0.00062;
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGGAGCGCGAGTCAGATCCTAGCGTCGAGCCCGCTCTGAGTCAGGAAACATTTTCA 60
Db 1 ATGAGGAGCGCGAGTCAGATCCTAGCGTCGAGCCCGCTCTGAGTCAGGAAACATTTTCA 60
QY 61 GACCTATGAAACTACTTCTGAAACACAGCTTCTGTCCTCCCTGCGTCCCAAGCAATG 120
Db 61 GACCTATGAAACTACTTCTGAAACACAGCTTCTGTCCTCCCTGCGTCCCAAGCAATG 120
QY 121 GATGATTTCATGCTGTCGCGGACGATATTGAAACATGTTTCACTGAAGACCCAGTCCA 180
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QY 181 GATGAAGCTCCAGAAATCCAGAGGTGCTCCCGGCTGGCCCTGTCACGAGAGTCTCT 240
Db 181 GATGAAGCTCCAGAAATCCAGAGGTGCTCCCGGCTGGCCCTGTCACGAGAGTCTCT 240
QY 241 ACACCGGCGCCCTGACACGCGCCCTCTGCGCCCTGTCATCTTCTGTCCTTCCCAG 300
Db 241 ACACCGGCGCCCTGACACGCGCCCTCTGCGCCCTGTCATCTTCTGTCCTTCCCAG 300
QY 301 AAAACCTACAGGGCAGCTACGGTTTCCGCTCTGGGCTTCTTGCAATCTGGGACGCAAG 360
Db 301 AAAACCTACAGGGCAGCTACGGTTTCCGCTCTGGGCTTCTTGCAATCTGGGACGCAAG 360
QY 361 TCTGTGACTTGCACGTAATCTCCCTGCTCAACAGATGTTTGGCAACTGGGCAAGACC 420
Db 361 TCTGTGACTTGCACGTAATCTCCCTGCTCAACAGATGTTTGGCAACTGGGCAAGACC 420
QY 421 TGCCTGTGCGAGCTGTGGTTGATTTCACACCCCGCCGACCCCGCTCCGCGCATG 480
Db 421 TGCCTGTGCGAGCTGTGGTTGATTTCACACCCCGCCGACCCCGCTCCGCGCATG 480
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 Db 961 AAACCACTGGATGGAGAAATATTCACCTTCAGATCCGTGGCGGTGAGCGCTTCGAGATG 1020  
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 Qy  
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## RESULT 4

US-08-460-736-215  
 ; Sequence 215, Application US/08460736  
 ; Patent No. 6265189

## GENERAL INFORMATION:

; APPLICANT: Paoletti, Enzo  
 ; APPLICANT: Tartaglia, James  
 ; APPLICANT: Cox, William I.

## TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY

; NUMBER OF SEQUENCES: 217

## CORRESPONDENCE ADDRESS:

; ADDRESSEE: Curtis, Morris & Safford  
 ; STREET: 530 Fifth Avenue  
 ; CITY: New York  
 ; STATE: NY  
 ; COUNTRY: USA

; ZIP: 10036

## COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patentin Release #1.0, Version #1.25

## CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/460,736

; FILING DATE: 02-JUN-1995

; CLASSIFICATION: 514

## PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/184,009

; FILING DATE: 19-JAN-1994

## ATTORNEY/AGENT INFORMATION:

; NAME: Frommer, William S.

; REGISTRATION NUMBER: 25,506

; REFERENCE/DOCKET NUMBER: 454310-2530

## TELECOMMUNICATION INFORMATION:

; TELEPHONE: (212) 840-3333

; TELEFAX: (212) 840-0712

; TELEX: 425066CURTMS

## INFORMATION FOR SEQ ID NO: 215:

## SEQUENCE CHARACTERISTICS:

; LENGTH: 1182 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: cDNA

US-08-460-736-215

## Query Match

Best Local Similarity 100.0%; Score 1179; DB 1; Length 1182;

Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGAGAGCGCAGTCTAGATCTTAGCTCGAGCCCTCTAGTCTAGGAAACAATTTTCA 60  
 Db 1 ATGAGAGCGCAGTCTAGATCTTAGCTCGAGCCCTCTAGTCTAGGAAACAATTTTCA 60  
 Qy 61 GACCTATGGAACCTACTCTCTGAAAAAACAAGTTCTGTCTGCCCCCTTGCCTCCCAAGCAATG 120  
 Db 61 GACCTATGGAACCTACTCTCTGAAAAAACAAGTTCTGTCTGCCCCCTTGCCTCCCAAGCAATG 120  
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 Db 121 GATGATTTGATGCTGCTCCCGGACGATATTCAAACAATGTTTCACTGAAGACCCAGGTCCA 180  
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 Db 421 TGCCTCTGAGCTGTGGGTTGATTCCACACCCCGCGGCGCACCGGTCGCGCCCATG 480  
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 Db 481 GCCATCTACAAGCAGTCAAGCAGATGACGAGGTTGTGAGCGCTGCCCCACCATGAG 540  
 Qy 541 CGCTGCTCAGATAGCGATGCTGCGCCCTCTCTAGCATCTTATCCGATGGAAGAAAT 600  
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 Db 601 TTGCGTGTGAGTATTGATGACAGAAACATTTTCGACATAGTGTGTGTGCCCTAT 660  
 Qy 661 GAGCGCGCTGAGTTGGCTCTGACTGTACCAATCCACTACAACCTACATGTGTAAACAGT 720  
 Db 661 GAGCGCGCTGAGTTGGCTCTGACTGTACCAATCCACTACAACCTACATGTGTAAACAGT 720  
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 Db 721 TCTGTCATGGCGGCATGAACCGGAGGCCCATCTCACCATCATCATCTGGAAGACTCC 780  
 Qy 781 AGTGTGTAATCTACTGGGACGAGACATTTTGGAGTGCCTGTTTGCCTGTCTCGGAGA 840  
 Db 781 AGTGTGTAATCTACTGGGACGAGACATTTTGGAGTGCCTGTTTGCCTGTCTCGGAGA 840  
 Qy 841 GACCGCGCACAGAGGAGAGAAATCTCCGCAAGAAAGGGAGGCTTCCACAGAGCTGCC 900  
 Db 841 GACCGCGCACAGAGGAGAGAAATCTCCGCAAGAAAGGGAGGCTTCCACAGAGCTGCC 900  
 Qy 901 CCAGGAGCACTAAGCGAGCACTGCCCAACAAACAGCTCCTCTCCCGACGCCAAAGAG 960  
 Db 901 CCAGGAGCACTAAGCGAGCACTGCCCAACAAACAGCTCCTCTCCCGACGCCAAAGAG 960  
 Qy 961 AAACCACTGGATGGAGAAATATTCACCTTCAGATCCGTGGCGGTGAGCGCTTCGAGATG 1020  
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 Qy 1081 GGGAGCAGGGCTCACTCCAGCCACTGAAAGTCCAAAAGGGTCACTCTACCTCCCGCCAT 1140  
 Db 1081 GGGAGCAGGGCTCACTCCAGCCACTGAAAGTCCAAAAGGGTCACTCTACCTCCCGCCAT 1140



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Qy	1141	AAAAAAGCTCATGTTCAAGACAGAGGCGCTGACTCAGAC	1179
Db	1141	AAAAAAGCTCATGTTCAAGACAGAGGCGCTGACTCAGAC	1179

## RESULT 5

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US-09-535-370-215
; Sequence 215, Application US/09535370
; Patent No. 6537594
; GENERAL INFORMATION:
; APPLICANT: Paolletti, Enzo
;          Cox, William I.
;          Tartaglis, James
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/535,370
; FILING DATE: 24-Mar-2000
; CLASSIFICATION: <Unknown>
; PRIORITY APPLICATION DATA:
; APPLICATION NUMBER: 08/460,736
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTMS
; INFORMATION FOR SEQ ID NO: 215:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1182 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; SEQUENCE DESCRIPTION: SEQ ID NO: 215:
US-09-535-370-215

Query Match      100.0%; Score 1179; DB 1; Length 1182;
Best Local Similarity 100.0%; Pred. No. 0.00062;
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  ATGAGAGAGCGGAGTCAGATCTTCTGAAAAACAAGCTTCTGTCCCTTCGCGTCCCAAGCAATTTCA 60
Ddb      1  ATGAGAGAGCGGAGTCAGATCTTCTGAAAAACAAGCTTCTGTCCCTTCGCGTCCCAAGCAATTTCA 60
QY      61  GACCTATGGAACACTACTTCTGAAAAACAAGCTTCTGTCCCTTCGCGTCCCAAGCAAT 120
Ddb      61  GACCTATGGAACACTACTTCTGAAAAACAAGCTTCTGTCCCTTCGCGTCCCAAGCAAT 120
QY      121  GATGATTGATGCTGTCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCA 180
Ddb      121  GATGATTGATGCTGTCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCA 180
QY      181  GATGACCTCCAGATGCCAGAGGTGCTCCCGGTGGGCCCTGTGACACGACGAGCTCCT 240

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RESULT 6  
US-08-184-009-103  
; Sequence 103, Application US/08184009  
; Patent No. 583395  
; GENERAL INFORMATION:  
; APPLICANT: Paoletti, Enzo

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; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/184,009
; FILING DATE: 19-JAN-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTWS
; INFORMATION FOR SEQ ID NO: 103:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1484 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cdna
; US-08-184-009-103

Query Match      100.0%; Score 1179; DB 1; Length 1484;
Best Local Similarity 100.0%; Pred. No. 0.00049;
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1  ATGGAGGAGCGGAGTCAGATCTCTAGCGTCGAGCCCGCTCTGAGTCAGGAAACATTTTCA 60
Db      233  ATGGAGGAGCGGAGTCAGATCTCTAGCGTCGAGCCCGCTCTGAGTCAGGAAACATTTTCA 292
QY      61  GACCTATGGAACACTCTTCTGAAAAACAAGTCTGTCCTCCCGCTGCGGTCCTCCAGCAATG 120
Db      293  GACCTATGGAACACTCTTCTGAAAAACAAGTCTGTCCTCCCGCTGCGGTCCTCCAGCAATG 352
QY      121  GATGATTTGATGCTGTCCTCCCGGAGCATATTGACATGTTTCACTGAAGACCCAGGTCCA 180
Db      353  GATGATTTGATGCTGTCCTCCCGGAGCATATTGAAACAATGGTTCACTGAAGACCCAGGTCCA 412
QY      181  GATGAAGCTCCCAAGATGCCAGAGGCTGCTCCCGCGTGGCCCGCTCCACAGCAGCTCCT 240
Db      413  GATGAAGCTCCCAAGATGCCAGAGGCTGCTCCCGCGTGGCCCGCTCCACAGCAGCTCCT 472
QY      241  ACAACCGGCGCCCTGCAACAGCCCGCTCTGCGCCCTGTCATCTTCTGTCCTCCCGAG 300
Db      473  ACAACCGGCGCCCTGCAACAGCCCGCTCTGCGCCCTGTCATCTTCTGTCCTCCCGAG 532
QY      301  AANAACCTACAGGCGAGCTAGGTTTCGGTCTGGGCTTCTTGATTTCTGGGAGCAAG 360
Db      533  AANAACCTACAGGCGAGCTAGGTTTCGGTCTGGGCTTCTTGATTTCTGGGAGCAAG 592
QY      361  TCTGTGACTTGCAGTACTCCCTGCTCCCTCAACAAGATGTTTGGCAACTGGCCAGACC 420
Db      593  TCTGTGACTTGCAGTACTCCCTGCTCCCTCAACAAGATGTTTGGCAACTGGCCAGACC 652
QY      421  TGCCCTGTGAGTGTGGTGTGATTCACACCCCGCGCGGACCGCGTCCCGGCGCATG 480
Db      653  TGCCCTGTGAGTGTGGTGTGATTCACACCCCGCGCGGACCGCGTCCCGGCGCATG 712
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## RESULT 7

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US-08-458-356-103
; Sequence 103, Application US/08458356
; Patent No. 5942235
; GENERAL INFORMATION:
; APPLICANT: Paoletti, Enzo
; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/458,356
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QY      481  GCCATCTACAAGCAGTCACAGCACATGACGAGGTTGTGAGGCGCTGCCCCACCATGAG 540
Db      713  GCCATCTACAAGCAGTCACAGCACATGACGAGGTTGTGAGGCGCTGCCCCACCATGAG 772
QY      541  CGTGTCTCAGATAGCGATGGTGTGGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT 600
Db      773  CGTGTCTCAGATAGCGATGGTGTGGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT 832
QY      601  TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTCCCTAT 660
Db      833  TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTCCCTAT 892
QY      661  GAGCGCGCTGAGGTTGGCTCTGACTGTACCAACCATCCACTACAATCATGTGTAAACGT 720
Db      893  GAGCGCGCTGAGGTTGGCTCTGACTGTACCAACCATCCACTACAATCATGTGTAAACGT 952
QY      721  TCCTGATGGCGGCGATGAACCGGAGGCCCATCTCACCATCATCACACTGGAGACTCC 780
Db      953  TCCTGATGGCGGCGATGAACCGGAGGCCCATCTCACCATCATCACACTGGAGACTCC 1012
QY      781  AGTGTATATCTACTGGGACGGAACAGCTTTTTCAGGTGCGTGTGTTGCTGCTCTGGGAGA 840
Db      1013  AGTGTATATCTACTGGGACGGAACAGCTTTTTCAGGTGCGTGTGTTGCTGCTCTGGGAGA 1072
QY      841  GACCGCGCACAGAGGAAAGAGAAATCTCCGCAAGAAAGGGAGGCTTCAACAGAGCTGCC 900
Db      1073  GACCGCGCACAGAGGAAAGAGAAATCTCCGCAAGAAAGGGAGGCTTCAACAGAGCTGCC 1132
QY      901  CCAGGGAGACTAAGCGAGACTGCGCCCAACACACAGCTCTCTCCCGAGCCAAAGAG 960
Db      1133  CCAGGGAGACTAAGCGAGACTGCGCCCAACACACAGCTCTCTCCCGAGCCAAAGAG 1192
QY      961  AAACCACTGGATGGAGAAATATTTTACCCCTTCAGATCCGTGGGCGTGGAGGTTTCGAGATG 1020
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QY      1021  TTCCGAGAGCTGAATGAGGCTTTGAACTCAAGAGATGCCAGGCTGGGAGGAGCCAGGG 1080
Db      1253  TTCCGAGAGCTGAATGAGGCTTTGAACTCAAGAGATGCCAGGCTGGGAGGAGCCAGGG 1312
QY      1081  GGGAGAGGGCTCATTCCAGCCACCTGAGTCCAAAGGGTCAGTCTACCTCCGCGCAT 1140
Db      1313  GGGAGAGGGCTCATTCCAGCCACCTGAGTCCAAAGGGTCAGTCTACCTCCGCGCAT 1372
QY      1141  AAAAAAATCATGTTCAAGACAGAAAGGCTGACTCAGAC 1179
Db      1373  AAAAAAATCATGTTCAAGACAGAAAGGCTGACTCAGAC 1411
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; FILING DATE: 02-JUN-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/184,009
; FILING DATE: 19-JAN-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTMS
; INFORMATION FOR SEQ ID NO: 103:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1484 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
US-08-458-356-103

Query Match
Best Local Similarity 100.0%; Score 1179; DB 1; Length 1484;
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAGGAGCGCAGTCTAGCGTCGAGCGCCCTCTCAGTCAGGAAACATTTTCA 60
DB 233 ATGGAGGAGCGCAGTCTAGCGTCGAGCGCCCTCTCAGTCAGGAAACATTTTCA 292
QY 61 GACCTATGGAACACTACTTCTGAAACAAACGTTCTGCCCTTCCGCGTCCCAAGCAATG 120
DB 293 GACCTATGGAACACTACTTCTGAAACAAACGTTCTGCCCTTCCGCGTCCCAAGCAATG 352
QY 121 GATGATTTGATGCTGCTCCCGGACCATATTGAACATGGTTCACTGAAGACCCAGGTCCA 180
DB 353 GATGATTTGATGCTGCTCCCGGACCATATTGAACATGGTTCACTGAAGACCCAGGTCCA 412
QY 181 GATGAAGCTCCAGAAATGCCAGAGGCTGCTCCCGCGTGGCCCTTCCAGCAAGCTCCT 240
DB 413 GATGAAGCTCCAGAAATGCCAGAGGCTGCTCCCGCGTGGCCCTTCCAGCAAGCTCCT 472
QY 241 ACACGGCGGCGCTGACACAGCCCTCTGCGCCCTGTCATCTTCTGCTCCCTCCAG 300
DB 473 ACACGGCGGCGCTGACACAGCCCTCTGCGCCCTGTCATCTTCTGCTCCCTCCAG 532
QY 301 AAAACCTACAGGCGCAGTACGGTTTCGCTTGGCTTCTTGCATTCTGGGACAGCCAAAG 360
DB 533 AAAACCTACAGGCGCAGTACGGTTTCGCTTGGCTTCTTGCATTCTGGGACAGCCAAAG 592
QY 361 TCTGTGACTTGCAGGTACTCCCTGCTCCCTCAACAGATGTTTTCCTCACTGGCCCAAGACC 420
DB 593 TCTGTGACTTGCAGGTACTCCCTGCTCCCTCAACAGATGTTTTCCTCACTGGCCCAAGACC 652
QY 421 TGCCCTGTGAGCTGTGGTTGATTCCACACCCCGCGGACCCCGCTCCGCGCCCATG 480
DB 653 TGCCCTGTGAGCTGTGGTTGATTCCACACCCCGCGGACCCCGCTCCGCGCCCATG 712
QY 481 GCCATCTACAAGCAGTACACGACATGACGAGGTTGTGAGGCGCTGCCCAACCATGAG 540
DB 713 GCCATCTACAAGCAGTACACGACATGACGAGGTTGTGAGGCGCTGCCCAACCATGAG 772
QY 541 CGCTGCTCAGATAGCGTGTCTGCGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT 600
DB 773 CGCTGCTCAGATAGCGTGTCTGCGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT 832
QY 601 TTGGGTGTGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTCCCTAT 660
DB 833 TTGGGTGTGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGTCCCTAT 892
QY 661 GAGCGCGCTCAGGTTGGCTCTGACTGTACACCATCCACTACAACTACATGTGTAACAGT 720
DB 893 GAGCGCGCTCAGGTTGGCTCTGACTGTACACCATCCACTACAACTACATGTGTAACAGT 952

; FILING DATE: 02-JUN-1995
; Sequence 103 Application US/08460736
; Patent No. 6265189
; GENERAL INFORMATION:
; APPLICANT: Paolletti, Enzo
; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/460,736
; FILING DATE: 02-JUN-1995
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/184,009
; FILING DATE: 19-JAN-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTMS
; INFORMATION FOR SEQ ID NO: 103:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1484 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
US-08-458-356-103
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LENGTH: 1484 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: cdna  
US-08-460-736-103

Query Match 100.0%; Score 1179; DB 1; Length 1484;  
Best Local Similarity 100.0%; Pred. No. 0.00049;  
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAGGAGCGGCTGAGTCTAGCTGAGCGCCCTCTGAGTCAGGAACAATTTTCA 60  
DB 233 ATGGAGGAGCGGCTGAGTCTAGCTGAGCGCCCTCTGAGTCAGGAACAATTTTCA 292

QY 61 GACCTATGGAACACTACTTCTGAAACAAAGGTTCTGTCCTCCCTGCGCTCCCAAGCAATG 120  
DB 293 GACCTATGGAACACTACTTCTGAAACAAAGGTTCTGTCCTCCCTGCGCTCCCAAGCAATG 352

QY 121 GATGATTTGATGCTGTCCTCCGAGACATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 180  
DB 353 GATGATTTGATGCTGTCCTCCGAGACATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 412

QY 181 GATGAAGCTCCAGAAATCCAGAGCTGCTCCCGGCTGGCCCTGACACAGCAGCTCT 240  
DB 413 GATGAAGCTCCAGAAATCCAGAGCTGCTCCCGGCTGGCCCTGACACAGCAGCTCT 472

QY 241 ACACGGGCGGCTGACAGCCCTCTCTGGCCCTGTCATCTTCTGTCCTCCAG 300  
DB 473 ACACGGGCGGCTGACAGCCCTCTCTGGCCCTGTCATCTTCTGTCCTCCAG 532

QY 301 AAAACCTACAGGAGCTACGGTTTCGTTCTGGGCTTCTGCACTTCTGGACAGCAAG 360  
DB 593 AAAACCTACAGGAGCTACGGTTTCGTTCTGGGCTTCTGCACTTCTGGACAGCAAG 592

QY 361 TCTGTGACTTGCAGTCTGCTCCCTGCTCAACAAGATGTTTGCACCTGGCCAGAGACC 420  
DB 593 TCTGTGACTTGCAGTCTGCTCCCTGCTCAACAAGATGTTTGCACCTGGCCAGAGACC 652

QY 421 TGCCCTGTGAGCTGTGGTGTGATTCACACCCCGCCCGGACCCGCTGCGCGCATG 480  
DB 653 TGCCCTGTGAGCTGTGGTGTGATTCACACCCCGCCCGGACCCGCTGCGCGCATG 712

QY 481 GCATCTACAAGCAGTACAGACATACGAGGTTGTGAGGCTGCGCCACCATGAG 540  
DB 713 GCATCTACAAGCAGTACAGACATACGAGGTTGTGAGGCTGCGCCACCATGAG 772

QY 541 CGCTGCTCAGATAGCTGCTGGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT 600  
DB 773 CGCTGCTCAGATAGCTGCTGGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT 832

QY 601 TTGCGTGTGAGGATTTTGGATGACAGAAACATTTTTCGACATAGTGTGTTGCCCTAT 660  
DB 833 TTGCGTGTGAGGATTTTGGATGACAGAAACATTTTTCGACATAGTGTGTTGCCCTAT 892

QY 661 GAGCCGCTGAGTGTGCTCTGACTGTACACATCCACTACATACATGTTTAAACAGT 720  
DB 893 GAGCCGCTGAGTGTGCTCTGACTGTACACATCCACTACATACATGTTTAAACAGT 952

QY 721 TCTGTCATGGCGGATGAACCGGAGGCCATCTCACCATCATCATCTGGAAGACTCC 780  
DB 953 TCTGTCATGGCGGATGAACCGGAGGCCATCTCACCATCATCATCTGGAAGACTCC 1012

QY 781 AGTGGTAATCTACTGGAGCGAAGAGTCTGAGTGTGTTGTCCTGCTGGGAGA 840  
DB 1013 AGTGGTAATCTACTGGAGCGAAGAGTCTGAGTGTGTTGTCCTGCTGGGAGA 1072

QY 841 GACCGGCGCAGAGGAGAGAGATCTCCGCAAGAAAGGGAGCTCACCACGAGCTGCC 900  
DB 1073 GACCGGCGCAGAGGAGAGAGATCTCCGCAAGAAAGGGAGCTCACCACGAGCTGCC 1132

QY 901 CCAGGGAGCAGTAAAGCAGGACACTGCCCAACAACACAGCTCTCTCCCAAGCAAG 960

DB 1133 CCAGGAGCACTAAGCGAGCACTGCCCAACAACACAGCTCTCTCCCAAGCAAG 1192  
QY 961 AAACCACTGGATGGAGAAATTTTCACTTCCAGATCGTGGCGCTGAGCGCTTCGAGATG 1020  
DB 1193 AAACCACTGGATGGAGAAATTTTCACTTCCAGATCGTGGCGCTGAGCGCTTCGAGATG 1252  
QY 1021 TTCCGAGAGCTGAATGAGGCTTGGAACTCAAGGATGCCAGGCTGGGAAAGGAGCGAGG 1080  
DB 1253 TTCCGAGAGCTGAATGAGGCTTGGAACTCAAGGATGCCAGGCTGGGAAAGGAGCGAGG 1312  
QY 1081 GGGAGAGGGGCTCTCTCCAGCCACTGAAGTCCAAAAGGGTCACTTACCTCCGCCAT 1140  
DB 1313 GGGAGAGGGGCTCTCTCCAGCCACTGAAGTCCAAAAGGGTCACTTACCTCCGCCAT 1372  
QY 1141 AAAAATCTCATGTTCAAGACAGAGGGGCTGACTCAGAC 1179  
DB 1373 AAAAATCTCATGTTCAAGACAGAGGGGCTGACTCAGAC 1411

RESULT 9

US-09-535-370-103  
; Sequence 103, Application US/09535370  
; Patent No. 6537594  
; GENERAL INFORMATION:  
; APPLICANT: Paoletti, Enzo  
; Cox, William I.  
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY  
; NUMBER OF SEQUENCES: 217  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Curtis, Morris & Safford  
; CITY: New York  
; STATE: NY  
; COUNTRY: USA  
; ZIP: 10036  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patentin Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA: US/09/535,370  
; FILING DATE: 24-Mar-2000  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/460,736  
; FILING DATE: <Unknown>  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Frommer, William S.  
; REGISTRATION NUMBER: 25,506  
; REFERENCE/DOCKET NUMBER: 454310-2530  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (212) 840-3333  
; TELEFAX: (212) 840-0712  
; TELEX: 425066CURTMS  
; INFORMATION FOR SEQ ID NO: 103:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 1484 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: cdna  
; SEQUENCE DESCRIPTION: SEQ ID NO: 103:  
US-09-535-370-103

Query Match 100.0%; Score 1179; DB 1; Length 1484;  
Best Local Similarity 100.0%; Pred. No. 0.00049;  
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAGGAGCGGCTGAGTCTAGCTGAGCGCCCTCTGAGTCAGGAACAATTTTCA 60  
DB 233 ATGGAGGAGCGGCTGAGTCTAGCTGAGCGCCCTCTGAGTCAGGAACAATTTTCA 292



Db 569 AAAACCTACAGGCGAGTACGGTTCCGTTCTGGCTTCTTGCAATTCGGAGAGCCAG 628  
QY 361 TCTGTGACTTGCAGTACTCCCTCCCTCAACAGATGTTTTCGCAACTGGCCAGACC 420  
Db 629 TCTGTGACTTGCAGTACTCCCTCCCTCAACAGATGTTTTCGCAACTGGCCAGACC 688  
QY 421 TGCCTGTGAGCTGTGGTGTGATTCACACCCCGCCCGGACCCGGTCCGGCCATG 480  
Db 689 TGCCTGTGAGCTGTGGTGTGATTCACACCCCGCCCGGACCCGGTCCGGCCATG 748  
QY 481 GCCATCTACAGCAGTACACACATGACGAGGTTGTAGGCGTGCCTCCACCATGAG 540  
Db 749 GCCATCTACAGCAGTACACACATGACGAGGTTGTAGGCGTGCCTCCACCATGAG 808  
QY 541 CGCTGTCTCAGATAGGATGGTCTGGCCCTCTCTCAGCATCTTTATCCGAGTGGAGGAAT 600  
Db 809 CGCTGTCTCAGATAGGATGGTCTGGCCCTCTCTCAGCATCTTTATCCGAGTGGAGGAAT 868  
QY 601 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCACATAGTGTGGTGGCCCTAT 660  
Db 869 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCACATAGTGTGGTGGCCCTAT 928  
QY 661 GAGCGCTGAGGTTGGCTCTGACTGTACCATCTCCACTCAACTACATGTGTAAACAGT 720  
Db 929 GAGCGCTGAGGTTGGCTCTGACTGTACCATCTCCACTCAACTACATGTGTAAACAGT 988  
QY 721 TCTGTGATCTACTGCGGACGAGTCTGAGGTTGAGGTTGCGTGTGGTGGTCTCTGGAGA 840  
Db 1049 AGTGGTAAATCTACTGCGGACGAGTCTGAGGTTGAGGTTGCGTGTGGTGGTCTCTGGAGA 1108  
QY 841 GAGCGCGCACAGAGAGAGATCTCCGCAAGAAAGGAGGAGCTCACCACGAGTGGCC 900  
Db 1109 GAGCGCGCACAGAGAGAGATCTCCGCAAGAAAGGAGGAGCTCACCACGAGTGGCC 1168  
QY 901 CCAGGAGGAGTAAAGGAGGAGTCTGCGGACCAACACAGTCTCTTCTCCCGAGCAAGAAG 960  
Db 1169 CCAGGAGGAGTAAAGGAGGAGTCTGCGGACCAACACAGTCTCTTCTCCCGAGCAAGAAG 1228  
QY 961 AAACCACTGATGGAGATATTTACCTCTCAGATCCGTTGGGCGTGAGCGTTCGAGATG 1020  
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Db 1289 TTCCGAGAGCTGAATGAGGCTTTGGAACCTCAAGATGCCAGGCTGGGAGGAGCCAGGG 1348  
QY 1081 GGGAGGAGGCTCACTCCAGCCACTGAACTCAAGTCAAAAAGGCTCAGTCTACCTCCCGCAT 1140  
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QY 1141 AAAAACTATGTTCAGACAGAGGCTCTGACTCAGAC 1179  
Db 1409 AAAAACTATGTTCAGACAGAGGCTCTGACTCAGAC 1447

RESULT 11  
US-08-458-356-99  
; Sequence 99, Application US/08458356  
; Patent No. 5942235  
; GENERAL INFORMATION:  
; APPLICANT: Paoletti, Enzo  
; APPLICANT: Tartaglia, James  
; APPLICANT: Cox, William I.  
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY  
; NUMBER OF SEQUENCES: 217  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Curtis, Morris & Safford  
; STREET: 530 Fifth Avenue

CITY: New York  
STATE: NY  
COUNTRY: USA  
ZIP: 10036  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA: US/08/458,356  
FILING DATE: 02-JUN-1995  
CLASSIFICATION: 424  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/184,009  
FILING DATE: 19-JAN-1994  
ATTORNEY/AGENT INFORMATION:  
NAME: Frommer, William S.  
REGISTRATION NUMBER: 25,506  
REFERENCE/DOCKET NUMBER: 454310-2530  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (212) 840-3333  
TELEFAX: (212) 840-0712  
TELEX: 425066CURTMS  
INFORMATION FOR SEQ ID NO: 99:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1512 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
US-08-458-356-99  
Query Match 100.0%; Score 1179; DB 1; Length 1512;  
Best Local Similarity 100.0%; Pred. No. 0.00048;  
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 ATGGAGGAGCGCAGTTCAGATCTTAGCGTCGAGCCCTCTCTGAGTCAGGAAACATTTTCA 60  
Db 269 ATGGAGGAGCGCAGTTCAGATCTTAGCGTCGAGCCCTCTCTGAGTCAGGAAACATTTTCA 328  
QY 61 GACCTATGGAATACTTCTCTGAAACACAGTTCTGTCCCTTGTCCCTTGTCCAGCAATG 120  
Db 329 GACCTATGGAATACTTCTCTGAAACACAGTTCTGTCCCTTGTCCCTTGTCCAGCAATG 388  
QY 121 GATGATTTCATGCTGTCCCGGACGATATTGAAACATGTTTCACTGAAGACCCAGTCCA 180  
Db 389 GATGATTTCATGCTGTCCCGGACGATATTGAAACATGTTTCACTGAAGACCCAGTCCA 448  
QY 181 GATGAAGCTCCAGAAATGCCAGAGGCTGTCCCGCGGTGGCCCTGACAGAGCTCCT 240  
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Db 569 AAAACCTACAGGGCAGCTACGGTTTCCGTTCTGGGCTTCTTGCAATTCGGAGCAAGCAAG 628  
QY 361 TCTGTGACTTGCAGTACTCCCTCCCTCAACAGATGTTTTCGCAACTGGCCAGACC 420  
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QY 481 GCCATCTACAGCAGTACACACATGACGAGGTTGTAGGCGTGCCTCCACCATGAG 540  
Db 749 GCCATCTACAGCAGTACACACATGACGAGGTTGTAGGCGTGCCTCCACCATGAG 808



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QY 541 CGCTGCTCAGATAGCGATGCTGGGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 600
Db 809 CGCTGCTCAGATAGCGATGCTGGGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 868
QY 601 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGCCCTAT 660
Db 869 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGCCCTAT 928
QY 661 GAGCCGCCCTGAGGTTGGCTCTGACTGTACCACCATCCATACAACTACATGTCTAACAGT 720
Db 929 GAGCCGCCCTGAGGTTGGCTCTGACTGTACCACCATCCATACAACTACATGTCTAACAGT 988
QY 721 TCTGTCATGGCGGCATGAAACCGAGGCGCCATCTCCACCATCATCACCTGGAAGACTCC 780
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QY 781 AGTGGTAACTTACTGGGACGGAACAGCTTTGAGGTGGTGTGGTGGTGGTGGTGGTGG 840
Db 1049 AGTGGTAACTTACTGGGACGGAACAGCTTTGAGGTGGTGTGGTGGTGGTGGTGGTGG 1108
QY 841 GAGCCGCCCACAGAGGAAGAGAAATCTCCGCAAGAAAGGAGGAGCTTCACCAAGACTGCC 900
Db 1109 GAGCCGCCCACAGAGGAAGAGAAATCTCCGCAAGAAAGGAGGAGCTTCACCAAGACTGCC 1168
QY 901 CCAGGAGGACTAAGGAGGACTGCCCCAACAACAACAGCTCTCTCCCCAGGCCAAGAG 960
Db 1169 CCAGGAGGACTAAGGAGGACTGCCCCAACAACAACAGCTCTCTCCCCAGGCCAAGAG 1228
QY 961 AAACCACTGGATGGAGAGATATTTACCCCTTCAGATCCGTTGGGCGTTCAGATG 1020
Db 1229 AAACCACTGGATGGAGAGATATTTACCCCTTCAGATCCGTTGGGCGTTCAGATG 1080
QY 1021 TTCCGAGAGCTGAATGAGGCTTGGAACTCAAGGATGCCAGGCTGGGAAGGAGCCAGG 1080
Db 1289 TTCCGAGAGCTGAATGAGGCTTGGAACTCAAGGATGCCAGGCTGGGAAGGAGCCAGG 1348
QY 1081 GGGAGCAGGCTCACTCAGACCACTGAACTGCTGAAAGGCTGCTACCTCCCGCCAT 1140
Db 1349 GGGAGCAGGCTCACTCAGACCACTGAACTGCTGAAAGGCTGCTACCTCCCGCCAT 1408
QY 1141 AAAAACACTCATGTTCAACAGAGAGGCGCTCACTCAGAC 1179
Db 1409 AAAAACACTCATGTTCAACAGAGAGGCGCTCACTCAGAC 1447

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## RESULT 12

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US-08-460-736-99
; Sequence 99, Application US/08460736
; Patent No. 6265189
; GENERAL INFORMATION:
; APPLICANT: Paoletti, Enzo
; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/460,736
; FILING DATE: 02-JUN-1995
; CLASSIFICATION: 514
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/184,009

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; FILING DATE: 19-JAN-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTMS
; INFORMATION FOR SEQ ID NO: 99:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1512 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; US-08-460-736-99

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Query Match      100.0%; Score 1179; DB 1; Length 1512;
Best Local Similarity 100.0%; Pred. No. 0.00048;
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGGAGGAGCCGACGTCTAGCGTCGAGCGCCCTCTGAGTCAGTCAAGTCAAGAAACATTTTCA 60
Db 269 ATGGAGGAGCCGACGTCTAGCGTCGAGCGCCCTCTGAGTCAGTCAAGTCAAGAAACATTTTCA 328
QY 61 GACCTATGAAACTACTTCTGAAACAAACGTTCTGTCCCCCTTCCCGTCCCAAGCAATG 120
Db 329 GACCTATGAAACTACTTCTGAAACAAACGTTCTGTCCCCCTTCCCGTCCCAAGCAATG 388
QY 121 GATGATTTGATGCTGTCCCGGACGATATTGAAACAAATGGTTCACTGAAGACCCAGTCCA 180
Db 389 GATGATTTGATGCTGTCCCGGACGATATTGAAACAAATGGTTCACTGAAGACCCAGTCCA 448
QY 181 GATGAAGCTCCAGAAATGCCAGAGGCTCTCCCGCGTGGGCCCTTGCACACGAGCTCCT 240
Db 449 GATGAAGCTCCAGAAATGCCAGAGGCTCTCCCGCGTGGGCCCTTGCACACGAGCTCCT 300
QY 241 ACACCGCGCGCCCTGCACACGAGCCCTCTCTGGGCCCTTGCATCTTCTGTCCCTTCCCGAG 568
Db 509 ACACCGCGCGCCCTGCACACGAGCCCTCTCTGGGCCCTTGCATCTTCTGTCCCTTCCCGAG 628
QY 301 AAAACCTACACGAGGAGCTACGCTTTCGCTGGGCTTTCGCAATTTGGGACAGCCAAAG 688
Db 569 AAAACCTACACGAGGAGCTACGCTTTCGCTGGGCTTTCGCAATTTGGGACAGCCAAAG 748
QY 361 TCTGTGACTTGCACGCTACTCCCTGCGCTCAACAGAGATGTTTTCGCACTTGGGACAGCCAAAG 840
Db 629 TCTGTGACTTGCACGCTACTCCCTGCGCTCAACAGAGATGTTTTCGCACTTGGGACAGCCAAAG 900
QY 421 TGCCCTGTGAGCTGTGGTGTGATTTCCACACCCCGCGCGCACCCGCTCCCGGCCATG 480
Db 689 TGCCCTGTGAGCTGTGGTGTGATTTCCACACCCCGCGCGCACCCGCTCCCGGCCATG 540
QY 481 GCCATCTACAGCAGTCAAGCAGCATGACGAGGTTGTGAGGCGCTGCCCGCCACCATGAG 808
Db 749 GCCATCTACAGCAGTCAAGCAGCATGACGAGGTTGTGAGGCGCTGCCCGCCACCATGAG 868
QY 541 CGCTGTCTCAGATAGCGATGCTGGGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 600
Db 809 CGCTGTCTCAGATAGCGATGCTGGGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 660
QY 601 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGCCCTAT 928
Db 869 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGGTGGCCCTAT 988
QY 661 GAGCCGCCCTGAGGTTGGCTCTGACTGTACCACCATCCATACAACTACATGTCTAACAGT 720
Db 929 GAGCCGCCCTGAGGTTGGCTCTGACTGTACCACCATCCATACAACTACATGTCTAACAGT 780
QY 721 TCTGTCATGGCGGCATGAAACCGAGGCGCCATCTCCACCATCATCACCTGGAAGACTCC 840
Db 989 TCTGTCATGGCGGCATGAAACCGAGGCGCCATCTCCACCATCATCACCTGGAAGACTCC 1048

```

MOLECULE TYPE: cDNA		SEQUENCE DESCRIPTION: SEQ ID NO: 99:		US-09-535-370-99	
Query Match	100.0%	Score 1179;	DB 1;	Length 1512;	
Best Local Similarity	100.0%	Pred. No. 0.00048;			
Matches 1179;	Conservative	0;	Mismatches	0;	Indels
					Gaps
					0;
QY	1	ATGAGGAGCGCAGTCAGATCCTAGGCTCGAGCGCCCTCTGAGTCAGGAACATTTC	60		
DB	269	ATGAGGAGCGCAGTCAGATCCTAGGCTCGAGCGCCCTCTGAGTCAGGAACATTTC	328		
QY	61	GACCTATGGAACACTACTTCTGAAACACAGCTTCTGTCCCTTGCCTGCCAAGCAATG	120		
DB	329	GACCTATGGAACACTACTTCTGAAACACAGCTTCTGTCCCTTGCCTGCCAAGCAATG	388		
QY	121	GATGATTTGATGCTCTGCCCGACGATATTGAACAATGGTTCACTGAAGACCCAGTCCA	180		
DB	389	GATGATTTGATGCTCTGCCCGACGATATTGAACAATGGTTCACTGAAGACCCAGTCCA	448		
QY	181	GATGAAGCTCCAGAAATGTCAGAGGCTGCTCCCGGTGGCCCTTGGACGAGCTCCT	240		
DB	449	GATGAAGCTCCAGAAATGTCAGAGGCTGCTCCCGGTGGCCCTTGGACGAGCTCCT	508		
QY	241	ACACCGGGGGCCCTGACACAGCCCTCTGCGCCCTGTCATCTCTGTCTTCCCTTCCAG	300		
DB	509	ACACCGGGGGCCCTGACACAGCCCTCTGCGCCCTGTCATCTCTGTCTTCCCTTCCAG	568		
QY	301	AAAACCTACAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGATCTTGGGACAGCAAG	360		
DB	569	AAAACCTACAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGATCTTGGGACAGCAAG	628		
QY	361	TCTGTGACTTGCACGTACTCCCTGCGCTCACAAGATGTTTGGCCAACTGGGCCAAGACC	420		
DB	629	TCTGTGACTTGCACGTACTCCCTGCGCTCACAAGATGTTTGGCCAACTGGGCCAAGACC	688		
QY	421	TGCGCTGTGAGCTGTGGGTGATTCCACACCCCGCCCGCACCCGGTCCGCGCCATG	480		
DB	689	TGCGCTGTGAGCTGTGGGTGATTCCACACCCCGCCCGCACCCGGTCCGCGCCATG	748		
QY	481	GCACTACAAGCAGTCACAGCACATGACGAGGTTGTGAGGCGCTGCCCCACCATGAG	540		
DB	749	GCCATCTACAAGCAGTCACAGCACATGACGAGGTTGTGAGGCGCTGCCCCACCATGAG	808		
QY	541	CGCTGCTCAGATAGCGATGCTCTGGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT	600		
DB	809	CGCTGCTCAGATAGCGATGCTCTGGCCCTCTCAGCATCTTATCCGAGTGGAGGAAT	868		
QY	601	TTGCGTGTGAGTATTGGATGACAGAAACACTTTTCGACATAGTGTGGTGCCTTAT	660		
DB	869	TTGCGTGTGAGTATTGGATGACAGAAACACTTTTCGACATAGTGTGGTGCCTTAT	928		
QY	661	GAGCCGCTGAGTGTGGCTCTGACTGTACACCATCCACTACAACTACATGTGAACAGT	720		
DB	929	GAGCCGCTGAGTGTGGCTCTGACTGTACACCATCCACTACAACTACATGTGAACAGT	988		
QY	721	TCCTGATGGCGGCATGAACCGGAGGCCATCTCACCATCATCACACTGGAAGACTCC	780		
DB	989	TCCTGATGGCGGCATGAACCGGAGGCCATCTCACCATCATCACACTGGAAGACTCC	1048		
QY	781	AGTGGTAACTACTGCGGACGAAACAGCTTTGAGGTGGGTGTTGTGCTCTCTGGGAGA	840		
DB	1049	AGTGGTAACTACTGCGGACGAAACAGCTTTGAGGTGGGTGTTGTGCTCTCTGGGAGA	1108		
QY	841	GACCGGCGCACAGGAGAGAAATCTCGCAAGAAAGGGGACCTCACCAGAGTGGCC	900		
DB	1109	GACCGGCGCACAGGAGAGAAATCTCGCAAGAAAGGGGACCTCACCAGAGTGGCC	1168		
QY	901	CCAGGAGCACTAAGCGAGCACTGCCAACCAACACAGCTCTCTCCCGAGCCAAAGAAG	960		
DB	1169	CCAGGAGCACTAAGCGAGCACTGCCAACCAACACAGCTCTCTCTCCCGAGCCAAAGAAG	1228		
QY	961	AAACCACTGGATGAGAAATATTACCCCTTCAGATCCGTGGCGGTGAGCGCTTCGAGATG	1020		

781 AGTGGTAATCTACTCGGACGGACAGCTTTGAGGTGCGGTGTTGTGCGCTGTCTCTGGAGA 840  
 1049 AGTGGTAAATCTACTGGGACGGAAACAGCTTTGAGTGGGTGTTGTGCTGTCTCTGGAGA 1108  
 841 GACCGGCGCACAGAGAAAGAGAAATCTCCGCAAGAAAGGGAGCCTCAACAGAGCTGCC 900  
 1109 GACCGGCGCACAGAGAAAGAGAAATCTCCGCAAGAAAGGGAGCCTCAACAGAGCTGCC 1168  
 901 CCAGGAGCAGCTAAGCGAGCAGCTGCCCAACACACAGCTCCTTCCCCAGCAAGAAG 960  
 1169 CCAGGAGCAGCTAAGCGAGCAGCTGCCCAACACACAGCTCCTTCCCCAGCAAGAAG 1228  
 961 AAACCACTGATCGAGAAATATTTACCCCTTCAGATCCGTGGCGGTGAGCGCTTCGAGATG 1020  
 1229 AAACCACTGATCGAGAAATATTTACCCCTTCAGATCCGTGGCGGTGAGCGCTTCGAGATG 1288  
 1021 TTCCGAGAGCTGAATGAGGCTTTGGAATCAAGGATGCCAGGCTGGGAAGGAGCCAGGG 1080  
 1289 TTCCGAGAGCTGAATGAGGCTTTGGAATCAAGGATGCCAGGCTGGGAAGGAGCCAGGG 1348  
 1081 GGGAGCAGGCTCACTCCAGCCACTGAACTCAAAAAGGTCAGTCTACTCCGCCAT 1140  
 1349 GGGAGCAGGCTCACTCCAGCCACTGAACTCAAAAAGGTCAGTCTACTCCGCCAT 1408  
 1141 AAAAACTCATGTTCAAGACAGAGGCGCTGACTCAGAC 1179  
 1409 AAAAACTCATGTTCAAGACAGAGGCGCTGACTCAGAC 1447  
  
 RESULT 13  
 US-09-535-370-99  
 ; Sequence 99, Application US/09535370  
 ; Patent No. 6537594  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Paoletti, Enzo  
 ; Tartaglia, James  
 ; Cox, William I.  
 ; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY  
 ; NUMBER OF SEQUENCES: 217  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Curtis, Morris & Safford  
 ; STREET: 530 Fifth Avenue  
 ; CITY: New York  
 ; STATE: NY  
 ; COUNTRY: USA  
 ; ZIP: 10036  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: Patent In Release #1.0, Version #1.25  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/09/535,370  
 ; FILING DATE: 24-Mar-2000  
 ; CLASSIFICATION: <Unknown>  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: 08/460,736  
 ; FILING DATE: <Unknown>  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Frommer, William S.  
 ; REGISTRATION NUMBER: 25,506  
 ; REFERENCE/DOCKET NUMBER: 454310-2530  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: (212) 840-3333  
 ; TELEFAX: (212) 840-0712  
 ; TELEX: 425066CURTMS  
 ; INFORMATION FOR SEQ ID NO: 99:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 1512 base pairs  
 ; TYPE: nucleic acid  
 ; STRANDEDNESS: single  
 ; TOPOLOGY: linear  
 ;



```

Db      1229  AAACCACTGGATGGAATATTTTCACTCCCTTACATCCGTGGCGTGGAGGCTTCGAGATG 1288
QY      1021  TTCCGAGAGCTGAATGAGGCTTTGGAACCTCAAGGATGCCAGGCTGGGAAGGAGCCAGG 1080
Db      1289  TTCCGAGAGCTGAATGAGGCTTTGGAACCTCAAGGATGCCAGGCTGGGAAGGAGCCAGG 1348
QY      1081  GGGAGCAGGCTCACTCCAGCCACCTGAAGTCCAAAAGGCTCAGTCTACCTCCCGCCAT 1140
Db      1349  GGGAGCAGGCTCACTCCAGCCACCTGAAGTCCAAAAGGCTCAGTCTACCTCCCGCCAT 1408
QY      1141  AAAAAAATCATGTTCAAGCAGAGGCTGACTCAGAC 1179
Db      1409  AAAAAAATCATGTTCAAGCAGAGGCTGACTCAGAC 1447

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RESULT 14
US-08-184-009-215/c
; Sequence 215, Application US/08184009
; Patent No. 5833975
; GENERAL INFORMATION:
; APPLICANT: Paoletti, Enzo
; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/184,009
; FILING DATE: 19-JAN-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTMS
; INFORMATION FOR SEQ ID NO: 215:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1182 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cdna
US-08-184-009-215

```

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Query Match      2.3%; Score 26.6; DB 1; Length 1182;
Best Local Similarity 51.2%; Pred. No. 13;
Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;

QY      174  AGGTCCAGATGAAGCTCCCAAGATGCCAGAGGCTGCTCCCGGCTGGAGCCCTGCACGAGC 233
Db      294  AGGACAGAGATGACAGAGGCCAGGAGGGGCTGGTGCAGAGGGCCCGCGGTGTAGGAGC 235
QY      234  AGCTCTTACACCGCGGCCCTCTGCACAGCCCTCTCTGCGCCCTGTCACTTCTGTGCC 293
Db      234  TGCTGGTGCAGGGGCCACCGGGGAGCAGCCTCTGGCAATCTGGGAGCTTCACTCTGGACC 175
QY      294  T 294

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Db      174  T 174

RESULT 15
US-08-458-356-215/c
; Sequence 215, Application US/08458356
; Patent No. 5942235
; GENERAL INFORMATION:
; APPLICANT: Paoletti, Enzo
; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/458,356
; FILING DATE: 02-JUN-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/184,009
; FILING DATE: 19-JAN-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-3333
; TELEFAX: (212) 840-0712
; TELEX: 425066CURTMS
; INFORMATION FOR SEQ ID NO: 215:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1182 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cdna
US-08-458-356-215

Query Match      2.3%; Score 26.6; DB 1; Length 1182;
Best Local Similarity 51.2%; Pred. No. 13;
Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;

QY      174  AGGTCCAGATGAAGCTCCCAAGATGCCAGAGGCTGCTCCCGGCTGGAGCCCTGCACGAGC 233
Db      294  AGGACAGAGATGACAGAGGCCAGGAGGGGCTGGTGCAGAGGGCCCGCGGTGTAGGAGC 235
QY      234  AGCTCTTACACCGCGGCCCTCTGCACAGCCCTCTCTGCGCCCTGTCACTTCTGTGCC 293
Db      234  TGCTGGTGCAGGGGCCACCGGGGAGCAGCCTCTGGCAATCTGGGAGCTTCACTCTGGACC 175
QY      294  T 294

```

Search completed: September 28, 2004, 12:06:14  
Job time : 20 secs



GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: September 28, 2004, 12:07:16 ; Search time 15 Seconds  
(without alignments)  
2.663 Million cell updates

Title: SEQ58-252-1430  
Perfect score: 1179  
Sequence: 1 atgagaggccgcagtcaga.....cagaaggcctgactcaac 1179

Scoring table: IDENTITY NUC  
Gapop 10.0 , Gapext 0.5

Searched: 10 seqs, 16943 residues

Total number of hits satisfying chosen parameters: 20

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : nqsdbs:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Query No.	Score	Query		Length	DB	ID	Description
			Match	%				
1	1	1179	100.0	1182	1	AAQ67884	Human p53 DNA. Sy	
2	2	1179	100.0	1182	1	AAZ08529	Human p53 gene. H	
3	3	1179	100.0	1182	1	AAH19387	p53 coding sequenc	
4	4	1179	100.0	1484	1	AAZ08435	H6/p53 (wildtype)	
5	5	1179	100.0	1512	1	AAZ08434	H6/p53 (wildtype)	
6	6	1179	100.0	2061	1	ADD93292	p53-Chk1(1-270) fu	
7	7	1179	100.0	2367	1	ADD93280	p53-SGK(60-431) fu	
8	8	1179	100.0	2385	1	ADD93288	p53-Myt1(1-378) fu	
9	9	1179	100.0	2406	1	ADD93286	p53-Yak3 fusion pr	
10	10	1177.4	99.9	1182	1	ADC35154	Human breast canc	
c 11	11	26.6	2.3	1182	1	AAQ67884	Human p53 DNA. Sy	
c 12	12	26.6	2.3	1182	1	AAZ08529	Human p53 gene. H	
c 13	13	26.6	2.3	1182	1	AAH19387	p53 coding sequenc	
c 14	14	26.6	2.3	1182	1	ADC35154	Human breast canc	
c 15	15	26.6	2.3	1484	1	AAZ08435	H6/p53 (wildtype)	
c 16	16	26.6	2.3	1512	1	AAZ08434	H6/p53 (wildtype)	
c 17	17	26.6	2.3	2061	1	ADD93292	p53-Chk1(1-270) fu	
c 18	18	26.6	2.3	2367	1	ADD93290	p53-SGK(60-431) fu	
c 19	19	26.6	2.3	2385	1	ADD93288	p53-Myt1(1-378) fu	
c 20	20	26.6	2.3	2406	1	ADD93286	p53-Yak3 fusion pr	

## ALIGNMENTS

RESULT 1  
AAQ67884  
ID AAQ67884 standard; DNA; 1182 BP.

AAQ67884;

XX  
DT  
25-MAR-2003 (revised)

DT 23-MAR-1995 (first entry)

XX	Human p53 DNA.
DE	
XX	
KW	Polymerase chain reaction; primer; amplify; NYVAC; ALVAC; recombinant;
KW	murine; interleukin-2; IL-2; pRW825; pmuc-1; pBS-SK; pMW151; TK vector;
KW	plasmid; vaccinia; H6 promoter; amplify; primer; antigenic response;
KW	Polymerase chain reaction; poxvirus; pSD542; immunological response;
KW	pathogen; human; interferon; IFN; ss.
XX	
OS	Synthetic.
XX	
XX	WO9416716-A1.
PN	
XX	
XX	04-AUG-1994.
PD	
XX	
XX	21-JAN-1994; 94WO-US000088.
XX	
PR	21-JAN-1993; 93US-00007115.
PR	19-JAN-1994; 94US-00184009.
XX	
XX	(VIRO-) VIROGENETICS CORP.
PA	
PI	Paoletti E, Tartaglia J, Cox WI;
XX	
XX	WPI; 1994-263767/32.
DR	
XX	
PT	Attenuated recombinant virus used for cancer therapy - comprises DNA
PT	encoding cytokine and/or tumour associated antigen.
XX	
PS	Example 32; Fig 39; 232pp; English.

This sequence represents the wildtype human p53 gene from the translation initiation codon to the stop codon. This sequence was used in the construction of an ALVAC-based recombinant virus containing a mutant form of the human p53 gene. The mutant form has a G>A substitution at position 524, changing an Arg residue at position 175 to a His residue. The plasmid pWM110 (see also AAQ67864) contains the vaccinia H6 promoter and the wild type human p53 gene in the ALVAC C5 insertion site. The p53 gene was obtained from plasmid Cx32A and cloned into pWM110 to generate pWM143. Recombination between pWM143 and ALVAC rescuing virus produced recombinant virus vCP270, which contains the vaccinia H6 promoted mutated human p53 in the C5 locus. The resulting virus may be used in a composition for inducing an antigenic or immunological response, ie. for immunisation against pathogens. (Updated on 25-MAR-2003 to correct PN field.)

Sequence 1182 BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;

Query Match 100.0%; Score 1179; DB 1; Length 1182;  
Best Local Similarity 100.0%; Pred. No. 0.00058;  
Matches 1179; Conservative 0; Mismatches 0; Indels 0;

1 ATGGAGGAGCCGAGTCAGATCCTAGCGTCGAGGCCCTCTGAGTCAGGAACAATTTTCA 60

db  
1 ATGGAGGAGCGCAGTTCAGATCTAGCGTCGAGCCCCCTCTGAGTCAGGAACAATTTTCA 60

61 GACCTATGGAACTACTTCTCTGAAACAACGTTCTGTCCCCCTTGGCGTCCCAAGCAATG 120

61 GACCTATGGAAC TACTTCTCTGAAACAACGTTCTGTCCCTTGCCTGCCAAGCAATG 120

121 GATGATTTGATGCTGTCCCCGGACGATATTGAACAATGGTTCAC TGAAGACCCAGGTCCA 180

121 GATGATTGATGCTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGTCCA 180

181 GATGAAGCTCCAGAAATGCCAGAGGCTGCTCCCGCGTGGCCCTGCACCGCAGCTCT 240

102 GATGAGGATCCAGAAAGGCTGCTCCCGGCTGGCCCTGCACCGAGCTCT 240

[illegible][illegible]

-----

Db 301 AAAACCTTACCAGGCGACGTACGGTTTCGGTCTGGGCTTCCTGCAATTCGGAGACGCCAAG 360  
 Qy 361 TCTGTGACTTGCAGTACTCCCTCCCTCAACAGAGATGTTTCCCACTGGCCCAAGACC 420  
 Db 361 TCTGTGACTTGCAGTACTCCCTCCCTCAACAGAGATGTTTCCCACTGGCCCAAGACC 420  
 Qy 421 TGCCCTGTGACGTGTGGTGTGATTCACACCCCGCCGCGACCCGGTCCGGCCATG 480  
 Db 421 TGCCCTGTGACGTGTGGTGTGATTCACACCCCGCCGCGACCCGGTCCGGCCATG 480  
 Qy 481 GCCATCTTACAGCAGTACACACATGACGAGGTGTGAGCGCTGCCCCACCATGAG 540  
 Db 481 GCCATCTTACAGCAGTACACACATGACGAGGTGTGAGCGCTGCCCCACCATGAG 540  
 Qy 541 CGCTGCTCAGATAGGATGTTGCGCCCTCTCAGCATCTTATCCGAGTGGAGAAAT 600  
 Db 541 CGCTGCTCAGATAGGATGTTGCGCCCTCTCAGCATCTTATCCGAGTGGAGAAAT 600  
 Qy 601 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCCGACATAGTGTGGTGCCTAT 660  
 Db 601 TTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCCGACATAGTGTGGTGCCTAT 660  
 Qy 661 GAGCGCTCAGTGTGGTCTGACTGTACCCATCCACTCACTACATGTGTAAACAGT 720  
 Db 661 GAGCGCTCAGTGTGGTCTGACTGTACCCATCCACTCACTACATGTGTAAACAGT 720  
 Qy 721 TCTGCTGAGGCGGATGAACCGGAGGCCATCTCACCATCATCAGTGGAGAACTCC 780  
 Db 721 TCTGCTGAGGCGGATGAACCGGAGGCCATCTCACCATCATCAGTGGAGAACTCC 780  
 Qy 781 AGTGGTAACTTACTGGGACGGAACAGCTTTGAGGTGCGTGTGTTGTCCTGCTGGGAG 840  
 Db 781 AGTGGTAACTTACTGGGACGGAACAGCTTTGAGGTGCGTGTGTTGTCCTGCTGGGAG 840  
 Qy 841 GACCGCGCACAGAGAGAGATCTCCGCAAGAGGCGGCTCACCACGAGCTGCC 900  
 Db 841 GACCGCGCACAGAGAGAGATCTCCGCAAGAGGCGGCTCACCACGAGCTGCC 900  
 Qy 901 CCAGGAGCACTAAGCGAGCACTGCCCAACACACAGCTCTCTCCCGAGCCAAAGAG 960  
 Db 901 CCAGGAGCACTAAGCGAGCACTGCCCAACACACAGCTCTCTCCCGAGCCAAAGAG 960  
 Qy 961 AAACCACTGGATGGAGAAATTTACCTTCAGATCGTGGGCTGAGGCTTCGAGATG 1020  
 Db 961 AAACCACTGGATGGAGAAATTTACCTTCAGATCGTGGGCTGAGGCTTCGAGATG 1020  
 Qy 1021 TTCCGAGAGCTGAATCAGGCTTTGGAACCTCAAGATGCCAGGCTGGAGAGGCCAGGG 1080  
 Db 1021 TTCCGAGAGCTGAATCAGGCTTTGGAACCTCAAGATGCCAGGCTGGAGAGGCCAGGG 1080  
 Qy 1081 GGGAGCAGGCTCACTCCAGCCACCTGAAGTCAAAAGGCTCAGTCTACTCCCGCAT 1140  
 Db 1081 GGGAGCAGGCTCACTCCAGCCACCTGAAGTCAAAAGGCTCAGTCTACTCCCGCAT 1140  
 Qy 1141 AAAAACTATGTTCAAGACAGAGGCTGACTCAGAC 1179  
 Db 1141 AAAAACTATGTTCAAGACAGAGGCTGACTCAGAC 1179

RESULT 2  
 AAZ08529  
 ID AAZ08529 standard; DNA; 1182 BP.

XX AAZ08529;  
 AC AAZ08529;  
 XX 19-OCT-1999 (first entry)  
 DT Human p53 gene.  
 DE Attenuated recombinant virus; cytokine; tumour associated antigen;  
 KW NYVAC recombinant virus; ALVAC recombinant virus; gene therapy; rabies;  
 KW cancer; tumour necrosis factor; nuclear phosphoprotein; p53; IL-2; GMCSF;  
 KW

KW interleukin; interferon; IFN-gamma; IL-4; melanoma associated antigen;  
 KW carcinoembryonic antigen; immunisation; antigenic; poxvirus; influenza;  
 KW immunological response; immunotherapy; vaccine; Newcastle Disease; ss.  
 OS Homo sapiens.  
 XX US5942235-A.  
 XX 24-AUG-1999.  
 XX 02-JUN-1995; 95US-00458356.  
 XX 24-DEC-1981; 81US-00334456.  
 XX 08-DEC-1982; 82US-00446824.  
 XX 19-JUN-1984; 84US-00622135.  
 XX 27-AUG-1987; 87US-00090209.  
 XX 28-AUG-1987; 87US-00090711.  
 XX 20-OCT-1987; 87US-00110335.  
 XX 23-AUG-1988; 88US-00186054.  
 XX 23-AUG-1988; 88US-00234390.  
 XX 14-JUN-1990; 90US-00537882.  
 XX 14-JUN-1990; 90US-00537890.  
 XX 16-DEC-1991; 91US-00805567.  
 XX 03-MAR-1992; 92US-00847977.  
 XX 06-MAR-1992; 92US-00847951.  
 XX 04-MAY-1992; 92US-00881995.  
 XX 22-JUL-1992; 92US-00918278.  
 XX 20-JAN-1993; 93US-00007115.  
 XX 19-JAN-1994; 94US-00184009.  
 XX 14-APR-1994; 94US-00228926.  
 XX 13-SEP-1994; 94US-00306259.  
 XX (HEAL-) HEALTH RES INC.  
 XX Paoletti E;  
 XX WPI; 1999-493494/41.  
 XX Recombinant poxviruses comprising exogenous DNA encoding antigenic  
 PT determinants useful in immunotherapy to immunize against cancers and  
 PT other diseases such as influenza, Newcastle Disease and rabies.  
 XX Example 32; Fig 39; 163pp; English.  
 XX The present invention describes a recombinant poxvirus (I), comprising  
 CC exogenous DNA encoding an antigenic determinant of a pathogen which is  
 CC then expressed in vivo in infected host cells after administration to a  
 CC patient and therefore induces an immunological response. (I) may be used  
 CC to vaccinate patients against a wide range of diseases and disorders  
 CC depending on the type of antigen encoded by the exogenous DNA. (I) may be  
 CC used to vaccinate against diseases such as rabies, influenza and  
 CC Newcastle Disease. It is particularly useful for immunising against  
 CC lymphocytes and tumour cells for use in cell-based immunotherapeutic  
 CC modalities for cancer. (I) also have enhanced safety compared to  
 CC unattenuated viruses (attenuation reduces the virulence of the viruses)  
 CC and known recombinant poxvirus vaccines. This increased level of safety  
 CC reduces the possibility of a 'runaway' infection in the host and reduces  
 CC the chance of transmission from vaccinated to unvaccinated individuals  
 CC and contamination of the environment. The present sequence represents a  
 CC human p53 gene used in the exemplification of the present invention  
 XX Sequence 1182 BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;

Query Match 100.0%; Score 1179; DB 1; Length 1182;  
 Best Local Similarity 100.0%; Pred. No. 0.00058;  
 Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 ATGAGGAGCGCGCAGTCAGATCTCTAGCGAGCCCTCTGAGTCAGGAACATTTTCA 60  
 Db 1 ATGAGGAGCGCGCAGTCAGATCTCTAGCGAGCCCTCTGAGTCAGGAACATTTTCA 60  
 Qy 61 GACCTATGGAAACTACTTCTCTGAAACACACGCTTCTGCTCCCTTGTCCGCTCCCAAGCAATG 120



XX Attenuated recombinant virus; cytokine; tumour associated antigen;  
KW NTVAC recombinant virus; ALVAC recombinant virus; gene therapy; rabies;  
KW cancer; tumour necrosis factor; nuclear phosphoprotein; p53; IL-2; GMCSF;  
KW interleukin; interferon; IFN-gamma; IL-4; melanoma associated antigen;  
KW carcinoembryonic antigen; immunisation; antigenic; poxvirus influenza;  
XX

```
QY 61 GACCTATGGAACATTAATTCTCTGAAACAAACAGTTTCTGTCCTCCCTGCGTCCGATCCCAAGCAATG 120
Db 293 GACCTATGGAACATTAATTCTCTGAAACAAAGTTTCTGTCCTCCCTGCGTCCGATCCCAAGCAATG 352
QY 121 GATGATTGATGTCGTCCTCCGAGCATATTTGAACAATGGTTCTACTGAAGACCCAGGTCCA 180
Db 353 GATGATTGATGTCGTCCTCCGAGCATATTTGAACAATGGTTCTACTGAAGACCCAGGTCCA 412
QY 181 GATGAAGCTCCCAAGATGCGAGAGGCTGCTCCCGGTGGCCCTGCAACAGCAGTCCCT 240
Db 413 GATGAAGCTCCCAAGATGCGAGAGGCTGCTCCCGGTGGCCCTGCAACAGCAGTCCCT 472
QY 241 ACACCGCGCGCCCTGCAACAGCCCTCTGTCGCCCTGTCATCTTCTGTCCTTCCCGAG 300
Db 473 ACACCGCGCGCCCTGCAACAGCCCTCTGTCGCCCTGTCATCTTCTGTCCTTCCCGAG 532
QY 301 AAAACCTACAGGCGAGCTACGGTTTCGCTGCGGCTTCTTGCAATCTGGGACAGCCAG 360
Db 533 AAAACCTACAGGCGAGCTACGGTTTCGCTGCGGCTTCTTGCAATCTGGGACAGCCAG 592
QY 361 TCTGTGACTTGCAAGTACTCCCTGCGCTCAACAAGATGTTTTGCCAACTGGCCAGAGCC 420
Db 593 TCTGTGACTTGCAAGTACTCCCTGCGCTCAACAAGATGTTTTGCCAACTGGCCAGAGCC 652
QY 421 TGCCTGTGCGAGTGTGGTGTGATTCACACCCCGCGGCAACCGCTCGCGCCATG 480
Db 653 TGCCTGTGCGAGTGTGGTGTGATTCACACCCCGCGGCAACCGCTCGCGCCATG 712
QY 481 GCCATCTACAAGCAGTACAGCAGACATGACGAGGTGTGAGGCGTGCCTCCACCATGAG 540
Db 713 GCCATCTACAAGCAGTACAGCAGACATGACGAGGTGTGAGGCGTGCCTCCACCATGAG 772
QY 541 CGCTGCTCAGATAGCGATGGTGTGCGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 600
Db 773 CGCTGCTCAGATAGCGATGGTGTGCGCCCTCTCAGCATCTTATCCGAGTGAAGAAAT 832
QY 601 TTGCGTGTGGAGTATTGGATGACAGAAACATTTTGGACATAGTGTGGTGGTCCCTAT 660
Db 833 TTGCGTGTGGAGTATTGGATGACAGAAACATTTTGGACATAGTGTGGTGGTCCCTAT 892
QY 661 GAGCGCGCTGAGTTGGCTGTGACTGTACCATGACCATCCACTCACTGATGTAAACAGT 720
Db 893 GAGCGCGCTGAGTTGGCTGTGACTGTACCATGACCATCCACTCACTGATGTAAACAGT 952
QY 721 TCCTGATGCGGCGCATGAACCGGAGGCCATCTCCACCATCATCAGTGTAAACAGT 780
Db 953 TCCTGATGCGGCGCATGAACCGGAGGCCATCTCCACCATCATCAGTGTAAACAGT 1012
QY 781 AGTGTATCTACTGGGAGGAAAGAGTGTGAGTGTGCTGCTGCTGGGAGA 840
Db 1013 AGTGTATCTACTGGGAGGAAAGAGTGTGAGTGTGCTGCTGCTGGGAGA 1072
QY 841 GACCGCGCGCAGAGGAGAAATCTCGCAGAAAGGGAGCTCTCAGGAGTCCACAGAGTGGCC 900
Db 1073 GACCGCGCGCAGAGGAGAAATCTCGCAGAAAGGGAGCTCTCAGGAGTCCACAGAGTGGCC 1132
QY 901 CCAGGAGAGCTAAGCGAGCAGTCCCAACAAACAGCAGTCTCTCCCGCAGCCAAAGAG 960
Db 1133 CCAGGAGAGCTAAGCGAGCAGTCCCAACAAACAGCAGTCTCTCCCGCAGCCAAAGAG 1192
QY 961 AAACCACTGATGAGATATTTTCAACCTTCAGATCCGCGGTGAGCGGTTCGAGATG 1020
Db 1193 AAACCACTGATGAGATATTTTCAACCTTCAGATCCGCGGTGAGCGGTTCGAGATG 1252
QY 1021 TTCGAGAGCTGAATGAGGCTTGGAACTCAAGATGCCAGGTCGGAAGAGCCAGG 1080
Db 1253 TTCGAGAGCTGAATGAGGCTTGGAACTCAAGATGCCAGGTCGGAAGAGCCAGG 1312
QY 1081 GGGAGCAGGCTCACTCCAGCAGCTGAAAGTCCAAAGAGGTGAGTCTACTTCCGCGCAT 1140
Db 1313 GGGAGCAGGCTCACTCCAGCAGCTGAAAGTCCAAAGAGGTGAGTCTACTTCCGCGCAT 1372
QY 1141 AAAAAGCTCATGTTCAAGACAGAGGCGCTGACTCAGAC 1179
```

```
Db 1373 AAAAAGCTCATGTTCAAGACAGAGGCGCTGACTCAGAC 1411
```

# RESULT 5

AAZ08434  
ID AAZ08434 standard; DNA; 1512 BP.

XX AAZ08434;

XX DT 19-OCT-1999 (first entry)

XX DE H6/p53 (wildtype) expression cassette and flanking regions from vP1101.

XX KW Attenuated recombinant virus; cytokine; tumour associated antigen;  
KW NYVAC recombinant virus; ALVAC recombinant virus; gene therapy; rabies;  
KW cancer; tumour necrosis factor; nuclear phosphoprotein; p53; IL-2; GMCSF;  
KW interleukin; interferon; IFN-gamma; IL-4; melanoma associated antigen;  
KW carcinoembryonic antigen; immunisation; antigenic; poxvirus; influenza;  
KW immunological response; immunotherapy; vaccine; Newcastle Disease; ss.

OS Synthetic.

OS Homo sapiens.

OS Vaccinia virus.

XX US5942235-A.

XX PD 24-AUG-1999.

XX PF 02-JUN-1995; 95US-00458356.

XX PR 24-DEC-1981; 81US-00334456.

XX PR 08-DEC-1982; 82US-00446824.

XX PR 19-JUN-1984; 84US-00622135.

XX PR 27-AUG-1987; 87US-00090209.

XX PR 28-AUG-1987; 87US-00090711.

XX PR 20-OCT-1987; 87US-00110335.

XX PR 25-APR-1988; 88US-00186054.

XX PR 23-AUG-1988; 88US-00234390.

XX PR 14-JUN-1990; 90US-00537882.

XX PR 16-DEC-1991; 91US-00805567.

XX PR 03-MAR-1992; 92US-00847977.

XX PR 06-MAR-1992; 92US-00847951.

XX PR 04-MAY-1992; 92US-00881955.

XX PR 22-JUL-1992; 92US-00918278.

XX PR 20-JAN-1993; 93US-00007115.

XX PR 19-JAN-1994; 94US-00184009.

XX PR 14-APR-1994; 94US-00228926.

XX PR 13-SEP-1994; 94US-00306259.

(HEAL-) HEALTH RES INC.

Paoletti E;

WPI; 1999-493494/41.

Recombinant poxviruses comprising exogenous DNA encoding antigenic determinants useful in immunotherapy to immunize against cancers and other diseases such as influenza, Newcastle Disease and rabies.

Example 15; Fig 17; 163pp; English.

The present invention describes a recombinant poxvirus (I), comprising exogenous DNA encoding an antigenic determinant of a pathogen which is then expressed in vivo in infected host cells after administration to a patient and therefore induces an immunological response. (I) may be used to vaccinate patients against a wide range of diseases and disorders depending on the type of antigen encoded by the exogenous DNA. (I) may be used to vaccinate against diseases such as rabies, influenza and Newcastle Disease. It is particularly useful for immunising against cancers. The poxvirus (I) also provides a means of manipulating lymphocytes and tumour cells for use in cell-based immunotherapeutic

CC modalities for cancer. (I) also have enhanced safety compared to  
CC unattenuated viruses (attenuation reduces the virulence of the viruses)  
CC and known recombinant poxvirus vaccines. This increased level of safety  
CC reduces the possibility of a 'runaway' infection in the host and reduces  
CC the chance of transmission from vaccinated to unvaccinated individuals  
CC and contamination of the environment. The present sequence represents a  
CC H6/p53 (wildtype) expression cassette and flanking regions from vP1101  
CC used in the exemplification of the present invention  
XX  
SQ Sequence 1512 BP; 379 A; 420 C; 379 G; 334 T; 0 U; 0 Other;  
  
Query Match 100.0%; Score 1179; DB 1; Length 1512;  
Best Local Similarity 100.0%; Pred. No. 0.00046;  
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 1 ATGAGGAGGCGCAGTCTAGATCTAGCTGAGCGTCCAGCCCTCTGAGTCAGGAACAATTTTCA 60  
Db ATGAGGAGGCGCAGTCTAGATCTAGCTGAGCGTCCAGCCCTCTGAGTCAGGAACAATTTTCA 328  
  
QY 61 GACCTATGGAACACTCTCTGGAACAAAGTTCCTGCGCCCTTGCCTGCCAGCAATG 120  
Db GACCTATGGAACACTCTCTGGAACAAAGTTCCTGCGCCCTTGCCTGCCAGCAATG 388  
  
QY 121 GATGATTTGATCTCTCCCGGACGATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 180  
Db GATGATTTGATCTCTCCCGGACGATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 448  
  
QY 181 GATGAAGCTCCAGAAATCCAGAGCTGTCTCCCGCGTGGCCCTGACACAGCAGTCTCT 240  
Db GATGAAGCTCCAGAAATCCAGAGCTGTCTCCCGCGTGGCCCTGACACAGCAGTCTCT 508  
  
QY 241 ACACGGGGGCGCCCTGACACGCGCCCTCTGCGCCCTGTCATCTCTCTCTCCCTCCCG 300  
Db ACACGGGGGCGCCCTGACACGCGCCCTCTGCGCCCTGTCATCTCTCTCTCTCCCTCCCG 568  
  
QY 301 AAAAACCCTACCGGCGAGTACGGTTTCCTGCTGGGCTTCTGATCTGGGACAGCAAG 360  
Db AAAAACCCTACCGGCGAGTACGGTTTCCTGCTGGGCTTCTGATCTGGGACAGCAAG 628  
  
QY 361 TCTGTGACTTGCACGTACTCCCTGCGCTCAACAAGATGTTTGCCAACTGGCCAAAGACC 420  
Db TCTGTGACTTGCACGTACTCCCTGCGCTCAACAAGATGTTTGCCAACTGGCCAAAGACC 688  
  
QY 421 TGCCCTGTGCAGTGTGGGTGATTCACACCCCGCGCGGACCCGCTCCCGCGCATG 480  
Db TGCCCTGTGCAGTGTGGGTGATTCACACCCCGCGCGGACCCGCTCCCGCGCATG 748  
  
QY 481 GCCATCTAAGCAGTTCAGACATGACGAGGTTGTGAGGCGCTGCCCGCCACCATGAG 540  
Db GCCATCTAAGCAGTTCAGACATGACGAGGTTGTGAGGCGCTGCCCGCCACCATGAG 808  
  
QY 541 CGCTGCTCAGATAGCATGTCTGGCCCTCTCAGCATCTTATCCGAGTGGGAAGAAAT 600  
Db CGCTGCTCAGATAGCATGTCTGGCCCTCTCAGCATCTTATCCGAGTGGGAAGAAAT 868  
  
QY 601 TTGCGTGTGAGTATTGATGATGACAGAAACACTTTTCGACATAGTGGTGGCCCTAT 660  
Db TTGCGTGTGAGTATTGATGATGACAGAAACACTTTTCGACATAGTGGTGGCCCTAT 928  
  
QY 661 GAGCCGCTGAGTGTGGCTCTGACTGTACCAACCATCCACTACACTACATGTGTAAACAGT 720  
Db GAGCCGCTGAGTGTGGCTCTGACTGTACCAACCATCCACTACACTACATGTGTAAACAGT 988  
  
QY 721 TCCTGATGGCGGCATGAAACCGAGGCGCCATCTCCATCATCATCTGGAAGATCTCC 780  
Db TCCTGATGGCGGCATGAAACCGAGGCGCCATCTCCATCATCATCTGGAAGATCTCC 1048  
  
QY 781 AGTGATTAATCTACTGGACGCAAGCTTTGAGTGGCTGTTTGTGCTGTCTCTGGGAGA 840  
Db AGTGATTAATCTACTGGACGCAAGCTTTGAGTGGCTGTTTGTGCTGTCTCTGGGAGA 1108  
  
QY 841 GACCGGCGCACAGAGGAGAAATCTCCGCAAGAAAGGGAGCTCTACACAGCTGCC 900  
Db GACCGGCGCACAGAGGAGAAATCTCCGCAAGAAAGGGAGCTCTACACAGCTGCC

Db 1109 GACCGGCGCACAGAGGAGAAATCTCCGCAAGAAAGGGAGCCTCACCAGAGCTGCC 1168  
QY 901 CCAGGAGCACTAAGCGAGCACTGCCCAAACAACACAGCTCCTCTCCCCAGCCAAAGAG 960  
Db 1169 CCAGGAGCACTAAGCGAGCACTGCCCAAACAACACAGCTCCTCTCCCCAGCCAAAGAG 1228  
QY 961 AAACCACTGGATGAGAAATATTTTCACTTTCAGATCCGTTGGGCGTGTGAGCGTTTGAGATG 1020  
Db 1229 AAACCACTGGATGAGAAATATTTTCACTTTCAGATCCGTTGGGCGTGTGAGCGTTTGAGATG 1288  
QY 1021 TTCCGAGAGCTGAATGAGGCGCTTGAAGTCCAGGATCCAGGCTGGGAGGAGCCAGGG 1080  
Db 1289 TTCCGAGAGCTGAATGAGGCGCTTGAAGTCCAGGATCCAGGCTGGGAGGAGCCAGGG 1348  
QY 1081 GGGAGCGGGCTCACTCCAGCCACTGAAGTCCAAAAGGGTCACTTACCTCCCGCCAT 1140  
Db 1349 GGGAGCGGGCTCACTCCAGCCACTGAAGTCCAAAAGGGTCACTTACCTCCCGCCAT 1408  
QY 1141 AAAAACAATCATGTTTCAAGACAGAGGGCTGACTCAGAC 1179  
Db 1409 AAAAACAATCATGTTTCAAGACAGAGGGCTGACTCAGAC 1447  
  
RESULT 6  
ADD93292  
ID ADD93292 standard; cDNA; 2061 BP.  
XX AC ADD93292;  
XX 29-JAN-2004 (first entry)  
XX p53-Chk1 (1-270) fusion protein coding sequence.  
DE ss; gene; p53-Chk1 (1-270); fusion protein; modulation;  
XX serine/threonine kinase; phosphorylation; drug design; cancer.  
KW Homo sapiens.  
XX Key Location/Qualifiers  
CDS 1..2061  
FT /\*tag= a  
FT /product= "p53-Chk1 (1-270)"  
XX WO2003087394-A1.  
XX 23-OCT-2003.  
XX 15-APR-2003; 2003WO-BP003988.  
XX 15-APR-2002; 2002US-0372662P.  
XX (GLAX ) GLAXO GROUP LTD.  
XX Suda M, Shibahara M;  
XX WPI; 2003-845339/78.  
XX P-PSDB; ADD93291.  
XX GENBANK; NM\_001274.  
XX Identifying a serine/threonine kinase modulator comprises expressing a  
PT substrate- serine/threonine kinase fusion protein in a cell, and  
PT determining phosphorylation level of the substrate in the presence of a  
PT candidate modulator.  
XX Claim 7; Page 16; 38pp; English.  
PS This sequence encodes a p53-Chk1 (1-270) fusion protein. This sequence may  
CC be used in the method of the invention for identifying a modulator of a  
CC specific serine/threonine kinase. The method comprises expressing a  
CC fusion protein between a substrate and a serine/threonine kinase within a  
CC cell, and determining the level of phosphorylation of the substrate in  
CC the presence of a candidate modulator. The method is useful for screening  
CC modulators of serine/threonine kinases. Serine/threonine kinases are



CC useful as targets for drug design, e.g., in the treatment of cancer.

XX Sequence 2061 BP; 552 A; 521 C; 531 G; 457 T; 0 U; 0 Other;  
 SQ Query Match 100.0%; Score 1179; DB 1; Length 2061;  
 Best Local Similarity 100.0%; Pred. No. 0.00034;  
 Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAGAGCGCGAGTCAGATCTTAGCGTGGAGCCCTCTGAGTCAGGAAACATTTTCA 60  
 DB 1 ATGAGAGCGCGAGTCAGATCTTAGCGTGGAGCCCTCTGAGTCAGGAAACATTTTCA 60  
 QY 61 GACCTATGGAACACTCTTCTGAAACAAAGTCTGTCGCTCCCTTGGCGTCCCAAGCAATG 120  
 DB 61 GACCTATGGAACACTCTTCTGAAACAAAGTCTGTCGCTCCCTTGGCGTCCCAAGCAATG 120  
 QY 121 GATGATTGATGCTGTCCTCCGAGCATATTAACATGTTTCACTGAGAACCCAGGTCCA 180  
 DB 121 GATGATTGATGCTGTCCTCCGAGCATATTAACATGTTTCACTGAGAACCCAGGTCCA 180  
 QY 181 GATGAAGCTCCCAAGATGCGAGAGGCTGCTCCCGGCTGCGCCCTGTCATCTTCTGTCCTTCCAG 240  
 DB 181 GATGAAGCTCCCAAGATGCGAGAGGCTGCTCCCGGCTGCGCCCTGTCATCTTCTGTCCTTCCAG 240  
 QY 241 ACACGGCGGCCCTGTCACAGAGCCCTCTGCGCCCTGTCATCTTCTGTCCTTCCAG 300  
 DB 241 ACACGGCGGCCCTGTCACAGAGCCCTCTGCGCCCTGTCATCTTCTGTCCTTCCAG 300  
 QY 301 AAAAAGCTACAGGAGCTACGCTTCCGCTGCGGCTTCTGAGTCTGGGACGCAAG 360  
 DB 301 AAAAAGCTACAGGAGCTACGCTTCCGCTGCGGCTTCTGAGTCTGGGACGCAAG 360  
 QY 361 TCTGTGACTGACGCTACGCTTCCCTGCTCAACAGATGTTTGGCACTGCGCCAGACC 420  
 DB 361 TCTGTGACTGACGCTACGCTTCCCTGCTCAACAGATGTTTGGCACTGCGCCAGACC 420  
 QY 421 TGCCCTGTGCGAGCTGCGGTTGATTCACACCCCGCGGCAACCGGCTCGCGCCATG 480  
 DB 421 TGCCCTGTGCGAGCTGCGGTTGATTCACACCCCGCGGCAACCGGCTCGCGCCATG 480  
 QY 481 GCCATCTACAGAGCTACAGCAGATGAGGAGTGTGAGCGCTGCGCCACCATGAG 540  
 DB 481 GCCATCTACAGAGCTACAGCAGATGAGGAGTGTGAGCGCTGCGCCACCATGAG 540  
 QY 541 CGCTGCTCAGATAGCATGGTCTGCGCCCTCTCTCAGCATCTTATCCGAGTGAAGGAAT 600  
 DB 541 CGCTGCTCAGATAGCATGGTCTGCGCCCTCTCTCAGCATCTTATCCGAGTGAAGGAAT 600  
 QY 601 TTGCGTGTGAGATTTGGATGACAGAAACATTTTGCACATAGTGTGTCGCTTAT 660  
 DB 601 TTGCGTGTGAGATTTGGATGACAGAAACATTTTGCACATAGTGTGTCGCTTAT 660  
 QY 661 GAGCGGCTGAGGTGGCTCTGACTGTACACCATCCACTACACTACATGTGTAAAGT 720  
 DB 661 GAGCGGCTGAGGTGGCTCTGACTGTACACCATCCACTACACTACATGTGTAAAGT 720  
 QY 721 TCTGTGATGGCGCATGAACCGGAGGCCATCTCTCACCATCATCACTGGAAGACTCC 780  
 DB 721 TCTGTGATGGCGCATGAACCGGAGGCCATCTCTCACCATCATCACTGGAAGACTCC 780  
 QY 781 AGTGGTAATCTACTGGACGACAGCTTTGAGTGTGCTGTGCTGCTGGAGA 840  
 DB 781 AGTGGTAATCTACTGGACGACAGCTTTGAGTGTGCTGTGCTGCTGGAGA 840  
 QY 841 GACCGGCGCACAGAGGAGAGATCTCCGCAAGGAGGAGCTTACACAGAGCTGCC 900  
 DB 841 GACCGGCGCACAGAGGAGAGATCTCCGCAAGGAGGAGCTTACACAGAGCTGCC 900  
 QY 901 CCAGGGAGCACTAAGCGAGCACTGCCCAACCAACACAGCTCTCTCCCGAGCAAG 960  
 DB 901 CCAGGGAGCACTAAGCGAGCACTGCCCAACCAACACAGCTCTCTCCCGAGCAAG 960  
 QY 961 AAACCACTGATGAGATATTTCAACCTTTCAGATCCGTCGGCGTGAGCGCTTCGAGATG 1020

DB 961 AAACCACTGATGAGATATTTCAACCTTTCAGATCCGTCGGCGTGAGCGCTTCGAGATG 1020  
 QY 1021 TTCCGAGAGCTGAATGAGGCTTTGGAACCTCAAGGATGCCAGGCTGGGAGAGCCAGGG 1080  
 DB 1021 TTCCGAGAGCTGAATGAGGCTTTGGAACCTCAAGGATGCCAGGCTGGGAGAGCCAGGG 1080  
 QY 1081 GGAGAGAGGCTCACTCCAGCCACCTGAAGTCCAAAAGGCTCAGTCTACCTCCCGCAT 1140  
 DB 1081 GGAGAGAGGCTCACTCCAGCCACCTGAAGTCCAAAAGGCTCAGTCTACCTCCCGCAT 1140  
 QY 1141 AAAAACTCATGTTCAGACAGAGGCTGACTCAGAC 1179  
 DB 1141 AAAAACTCATGTTCAGACAGAGGCTGACTCAGAC 1179

# RESULT 7

ADD93290  
 ID ADD93290 standard; cDNA; 2367 BP.  
 AC ADD93290;  
 XX  
 DT 29-JAN-2004 (first entry)  
 XX  
 DE p53-SGK(60-431) fusion protein coding sequence.  
 XX  
 KW ss; gene; p53-SGK(60-431); fusion protein; modulation;  
 serine/threonine kinase; phosphorylation; drug design; cancer.  
 XX  
 OS Homo sapiens.

Key Location/Qualifiers  
 CDS 1..2367  
 FT 1..2367  
 FT /\*tag= a  
 FT /product= "p53-SGK(60-431)"

XX WO2003087394-A1.  
 XX 23-OCT-2003.  
 XX 15-APR-2003; 2003WO-EP003988.  
 XX 15-APR-2002; 2002US-0372662P.  
 XX (GLAX ) GLAXO GROUP LTD.

XX Suda M, Shibahara M;

XX WPI; 2003-845339/78.  
 XX P-PSDB; ADD93289.  
 XX GENBANK; XM\_037046.

Identifying a serine/threonine kinase modulator comprises expressing a substrate- serine/threonine kinase fusion protein in a cell, and determining phosphorylation level of the substrate in the presence of a candidate modulator.

Claim 7; Page 15; 38pp; English.

This sequence encodes a p53-SGK(60-431) fusion protein. This sequence may be used in the method of the invention for identifying a modulator of a specific serine/threonine kinase. The method comprises expressing a fusion protein between a substrate and a serine/threonine kinase within a cell, and determining the level of phosphorylation of the substrate in the presence of a candidate modulator. The method is useful for screening modulators of serine/threonine kinases. Serine/threonine kinases are useful as targets for drug design, e.g., in the treatment of cancer.

SQ Sequence 2367 BP; 578 A; 672 C; 588 G; 529 T; 0 U; 0 Other;

Query Match 100.0%; Score 1179; DB 1; Length 2367;  
 Best Local Similarity 100.0%; Pred. No. 0.00029;  
 Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;



Db 61 GACCTATGGAACACTTCTCTGAAAAACAACTTCTGTCCCTTGGCGTCCCAAGCAATG 120  
QY 121 GATGATTTGATGCTGTCCCGGACGATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 180  
Db 121 GATGATTTGATGCTGTCCCGGACGATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 180  
QY 181 GATGAAGCTCCCAAGATGCGAGAGGTGCTCCCGGCTGCGCCCTGCAACAGCAGCTCCT 240  
Db 181 GATGAAGCTCCCAAGATGCGAGAGGTGCTCCCGGCTGCGCCCTGCAACAGCAGCTCCT 240  
QY 241 ACACGGCGGCGCCCTGACACAGCCCTCTGCGCCCTGCTCATCTTCTGTCCCTCCAG 300  
Db 241 ACACGGCGGCGCCCTGACACAGCCCTCTGCGCCCTGCTCATCTTCTGTCCCTCCAG 300  
QY 301 AAAACCTACAGGCGAGCTACGTTTCCGCTCTGGGCTTCTTGATCTGCGACAGCCAG 360  
Db 301 AAAACCTACAGGCGAGCTACGTTTCCGCTCTGGGCTTCTTGATCTGCGACAGCCAG 360  
QY 361 TCTGTGACTTGCACGTACTCCCTGCTGCTCAACAAGATGTTTGGCAACTGGCCAGACC 420  
Db 361 TCTGTGACTTGCACGTACTCCCTGCTGCTCAACAAGATGTTTGGCAACTGGCCAGACC 420  
QY 421 TGCCCTGTGCGAGCTGTGGGTTGATTTCCCAACCCCGCGGCAACCGGCTCCGCGCATG 480  
Db 421 TGCCCTGTGCGAGCTGTGGGTTGATTTCCCAACCCCGCGGCAACCGGCTCCGCGCATG 480  
QY 481 GCCATCTTCAAGAGCTACAGCACATGACGGAGGTTGTGAGCGCTGCCCCCACCACATGAG 540  
Db 481 GCCATCTTCAAGAGCTACAGCACATGACGGAGGTTGTGAGCGCTGCCCCCACCACATGAG 540  
QY 541 CGCTGCTCAGATAGGATGGTCTGCGCCCTCTCAGCATCTTATCCGAGTGGAGAAAT 600  
Db 541 CGCTGCTCAGATAGGATGGTCTGCGCCCTCTCAGCATCTTATCCGAGTGGAGAAAT 600  
QY 601 TTGCGTGTGAGTATTTCGATGACAGAACTTTTCCACATAGTGTGGTGGTCCCTAT 660  
Db 601 TTGCGTGTGAGTATTTCGATGACAGAACTTTTCCACATAGTGTGGTGGTCCCTAT 660  
QY 661 GAGCGGCTGAGTGTGGCTCTGACTGTACCACTCACTCACTCACTCACTCACTCACT 720  
Db 661 GAGCGGCTGAGTGTGGCTCTGACTGTACCACTCACTCACTCACTCACTCACTCACT 720  
QY 721 TCTGCTATGGCGGATGAACCGGAGGCTTCTCCGCAAGAAAGGAGCTCATCACTGGAAGTCC 780  
Db 721 TCTGCTATGGCGGATGAACCGGAGGCTTCTCCGCAAGAAAGGAGCTCATCACTGGAAGTCC 780  
QY 781 AGTGGTAACTTACTGGGACGAACTTTGAGTGGTGTGTTGCTGTCTGGGAGA 840  
Db 781 AGTGGTAACTTACTGGGACGAACTTTGAGTGGTGTGTTGCTGTCTGGGAGA 840  
QY 841 GACCGGCGCACAGGAGAGAAATCTCCGCAAGAAAGGAGCTCATCACTGGAAGTCC 900  
Db 841 GACCGGCGCACAGGAGAGAAATCTCCGCAAGAAAGGAGCTCATCACTGGAAGTCC 900  
QY 901 CCAGGAGGACTAAGCGAGCACTGCCCAACACACAGCTCTCTCCCGAGCCAAAGAG 960  
Db 901 CCAGGAGGACTAAGCGAGCACTGCCCAACACACAGCTCTCTCCCGAGCCAAAGAG 960  
QY 961 AAACCACTGATGGAGAAATTTTCACTTCCCTTCAGATCCGTTGGGCTGAGCGTTCGAGATG 1020  
Db 961 AAACCACTGATGGAGAAATTTTCACTTCCCTTCAGATCCGTTGGGCTGAGCGTTCGAGATG 1020  
QY 1021 TTCCGAGAGCTGAATGAGGCTTTGGAAGTCAAGGATGCCAGGCTGGGAGGAGCCAGG 1080  
Db 1021 TTCCGAGAGCTGAATGAGGCTTTGGAAGTCAAGGATGCCAGGCTGGGAGGAGCCAGG 1080  
QY 1081 GGGAGCAGGCTCACTCCAGCCACTTGAAGTCAAAAAGGCTCAGTCTACCTCCCGCCAT 1140  
Db 1081 GGGAGCAGGCTCACTCCAGCCACTTGAAGTCAAAAAGGCTCAGTCTACCTCCCGCCAT 1140  
QY 1141 AAAAACTCATGTTCAAGACAGAGGCTGACTCAGAC 1179  
Db 1141 AAAAACTCATGTTCAAGACAGAGGCTGACTCAGAC 1179

RESULT 9  
ADD93286  
ID ADD93286 standard; cDNA; 2406 BP.  
XX  
AC ADD93286;  
XX  
DT 29-JAN-2004 (first entry)  
XX  
DE p53-Yak3 fusion protein coding sequence.  
XX  
KW ss; gene; p53-Yak3 ; fusion protein; modulation; serine/threonine kinase;  
KW phosphorylation; drug design; cancer.  
XX  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
FT CDS 1..2406  
FT /\*tag= a  
FT /product= "p53-Yak3"  
XX  
PN W02003087394-A1.  
XX  
PD 23-OCT-2003.  
XX  
PF 15-APR-2003; 2003WO-EP003988.  
XX  
PR 15-APR-2002; 2002US-0372662P.  
XX  
PA (GLAX ) GLAXO GROUP LTD.  
XX  
PI Suda M, Shibahara M;  
XX  
DR WPI; 2003-845339/78.  
DR P-PSDB; ADD93285.  
DR GENBANK; AF186773.  
XX  
Identifying a serine/threonine kinase modulator comprises expressing a  
substrate- serine/threonine kinase fusion protein in a cell, and  
determining phosphorylation level of the substrate in the presence of a  
candidate modulator.  
Claim 7; Page 13; 38pp; English.  
This sequence encodes a p53-Yak3 fusion protein. This sequence may be  
used in the method of the invention for identifying a modulator of a  
specific serine/threonine kinase. The method comprises expressing a  
fusion protein between a substrate and a serine/threonine kinase within a  
cell, and determining the level of phosphorylation of the substrate in  
the presence of a candidate modulator. The method is useful for screening  
modulators of serine/threonine kinases. Serine/threonine kinases are  
useful as targets for drug design, e.g., in the treatment of cancer.  
Sequence 2406 BP; 611 A; 637 C; 622 G; 536 T; 0 U; 0 Other;

Query Match 100.0%; Score 1179; DB 1; Length 2406;  
Best Local Similarity 100.0%; Pred. No. 0.00029;  
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 ATGGAGGAGCGGAGTCAGATCTAGCGTCGAGCCCTCTGAGTCAGGAAACATTTTCA 60  
Db 1 ATGGAGGAGCGGAGTCAGATCTAGCGTCGAGCCCTCTGAGTCAGGAAACATTTTCA 60  
QY 61 GACCTATGAAACTTCTCTGAAACACAGTTCGTCCCTTGCCTCCCAAGCAATG 120  
Db 61 GACCTATGAAACTTCTCTGAAACACAGTTCGTCCCTTGCCTCCCAAGCAATG 120  
QY 121 GATGATTTGATGCTGTCCCGGACGATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 180  
Db 121 GATGATTTGATGCTGTCCCGGACGATATTGAACAATGTTTCACTGAAGACCCAGGTCCA 180  
QY 181 GATGAAGCTCCCAAGATGCGAGAGGTGCTCCCGGCTGCGCCCTGCAACAGCAGCTCCT 240

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Db 181 GATGAAGCTCCAGAAATGCCAGAGGCTGCTCCCGCGTGGCCCTGCACGAGAGCTCCT 240  
Qy 241 ACACCGCGCCCTGACACAGAGCCCTCTCTGCGCCCTGTGCATCTTCTGTCCTTCCAG 300  
Db 241 ACACCGCGCCCTGACACAGAGCCCTCTCTGCGCCCTGTGCATCTTCTGTCCTTCCAG 300  
Qy 301 AAAACCTACAGGCGAGTACGGTTTCCGTCTGGCTTCTTGGCATTTCTGGGACAGCAAG 360  
Db 301 AAAACCTACAGGCGAGTACGGTTTCCGTCTGGCTTCTTGGCATTTCTGGGACAGCAAG 360  
Qy 361 TCTGTGACTTGCAGTCTCCCTGCTCCCTCAACAGATGTTTGCCTCACTGCGCAAGACC 420  
Db 361 TCTGTGACTTGCAGTCTCCCTGCTCCCTCAACAGATGTTTGCCTCACTGCGCAAGACC 420  
Qy 421 TGCCCTGTGACGCTGTGGTTGATTTCCACACCCCGCGGACCCGCGTCCGCGCCATG 480  
Db 421 TGCCCTGTGACGCTGTGGTTGATTTCCACACCCCGCGGACCCGCGTCCGCGCCATG 480  
Qy 481 GCCATCTACAAGCAGTCAAGACATGACGAGGTTGTGAGCGCTGCCCCCAACATGAG 540  
Db 481 GCCATCTACAAGCAGTCAAGACATGACGAGGTTGTGAGCGCTGCCCCCAACATGAG 540  
Qy 541 CGCTGCTCAGATAGCGATGCTGCGCCCTCTCTCAGCATCTTATCCGAGTGAAGAAAT 600  
Db 541 CGCTGCTCAGATAGCGATGCTGCGCCCTCTCTCAGCATCTTATCCGAGTGAAGAAAT 600  
Qy 601 TTGCGTGTGGAGTATTGGATGACAGAAACACTTTTCCACATGATGTGTGTGCTGCTAT 660  
Db 601 TTGCGTGTGGAGTATTGGATGACAGAAACACTTTTCCACATGATGTGTGTGCTGCTAT 660  
Qy 661 GAGCGCGCTGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 720  
Db 661 GAGCGCGCTGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 720  
Qy 721 TCTGTGATGGCGGATGAGCGGAGCCCTCTCAGCATCATCATCTGAGTGAAGACTCC 780  
Db 721 TCTGTGATGGCGGATGAGCGGAGCCCTCTCAGCATCATCATCTGAGTGAAGACTCC 780  
Qy 781 AGTGGTAACTTACTGGGACGAAACAGCTTTTGAGTGTGCTGCTGCTGCTGCTGCTGCTG 840  
Db 781 AGTGGTAACTTACTGGGACGAAACAGCTTTTGAGTGTGCTGCTGCTGCTGCTGCTGCTG 840  
Qy 841 GACCGCGCACAGAGAAAGAAATCTCCGAGAAAGGAGGAGCTTACCAAGAGCTGCC 900  
Db 841 GACCGCGCACAGAGAAAGAAATCTCCGAGAAAGGAGGAGCTTACCAAGAGCTGCC 900  
Qy 901 CAGGAGGACACTAAGCGAGCACTGCCCAACACACAGAGCTTCTCTCCCGAGCAAGAG 960  
Db 901 CAGGAGGACACTAAGCGAGCACTGCCCAACACACAGAGCTTCTCTCCCGAGCAAGAG 960  
Qy 961 AAAACCACTGGATGGAGAAATTTTACCTTTCAATCGTGGGCGTGGCGCTTCGAGATG 1020  
Db 961 AAAACCACTGGATGGAGAAATTTTACCTTTCAATCGTGGGCGTGGCGCTTCGAGATG 1020  
Qy 1021 TCCGAGAGCTGAATGAGGCTTGGAACTCAAGATGCCAGGCTGGGAGGAGCCAGGG 1080  
Db 1021 TCCGAGAGCTGAATGAGGCTTGGAACTCAAGATGCCAGGCTGGGAGGAGCCAGGG 1080  
Qy 1081 GGGAGCAGGCTCACTCCAGCCACTGAAGTCCAAAAGAGGTCACTTACTTCCCGCAT 1140  
Db 1081 GGGAGCAGGCTCACTCCAGCCACTGAAGTCCAAAAGAGGTCACTTACTTCCCGCAT 1140  
Qy 1141 AAAAACTCATGTTCAAGACAGAGGCGCTGACTCAGAC 1179  
Db 1141 AAAAACTCATGTTCAAGACAGAGGCGCTGACTCAGAC 1179

RESULT 10  
ADC35154  
ID ADC35154 standard; cDNA; 1182 BP.  
XX  
AC ADC35154;

XX 18-DEC-2003 (first entry)  
XX Human breast cancer antigen polynucleotide seq id 38.  
DE breast cancer; breast cancer diagnosis; breast cancer antigen; gene; ss.  
XX Homo sapiens.  
XX US2003108888-A1.  
XX 12-JUN-2003.  
XX 15-MAY-2002; 2002US-00146473.  
XX 15-MAY-2001; 2001US-0291150P.  
XX (LUDW-) LUDWIG INST CANCER RES.  
XX Scanlan MJ, Gout I, Stockert E, Old LJ, Gure A, Chen Y;  
XX WPI; 2003-829397/77.  
XX P-PSDB; ADC35112.  
XX Diagnosing breast cancer in subject by obtaining biological sample from  
PT subject, contacting sample with breast cancer-associated polypeptides,  
PT determining specific binding between polypeptides and agents in sample.  
XX Claim 1; SEQ ID NO 38; 173pp; English.  
XX The invention describes a method of diagnosing breast cancer in subject  
CC comprising contacting biological sample from subject with at least two  
CC different breast cancer-associated polypeptides (I) encoded by nucleic  
CC acid molecules (II) comprising sequence chosen from 42 fully defined  
CC sequences as given in specification, determining specific binding between  
CC (I) and agents in sample, where presence of the binding is diagnostic for  
CC breast cancer. The method is useful for diagnosing breast cancer in a  
CC subject. The sample is blood, lymph node fluid or breast discharge fluid.  
CC This sequence encodes a breast cancer antigen.  
XX SQ Sequence 1182 BP; 276 A; 364 C; 308 G; 234 T; 0 U; 0 Other;

Query Match 99.9%; Score 1177.4; DB 1; Length 1182;  
Best Local Similarity 99.9%; Pred. No. 0.00059;  
Matches 1178; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 ATGGAGGAGCGGAGTCAAGTCTCTGAGTCAAGAGCCCTCTGAGTCAAGAAACATTTTCA 60  
Db 1 ATGGAGGAGCGGAGTCAAGTCTCTGAGTCAAGAGCCCTCTGAGTCAAGAAACATTTTCA 60  
Qy 61 GACCTATGGAACACTTCTCTGAAACAAACAGTTTCTGCTCCCTTGCCTCCCAAGCAATG 120  
Db 61 GACCTATGGAACACTTCTCTGAAACAAACAGTTTCTGCTCCCTTGCCTCCCAAGCAATG 120  
Qy 121 GATGATTGATGCTGTCCCGGAGCATATGAAATGTTTCACTGAAGACCCAGGTGCCA 180  
Db 121 GATGATTGATGCTGTCCCGGAGCATATGAAATGTTTCACTGAAGACCCAGGTGCCA 180  
Qy 181 GATGAGCTCCAGAGATGCCAGAGGCTGTCCCGGAGTGTCCCTGTCACAGAGTCTCT 240  
Db 181 GATGAGCTCCAGAGATGCCAGAGGCTGTCCCGGAGTGTCCCTGTCACAGAGTCTCT 240  
Qy 241 ACACCGGCGCCCTGACACAGAGCCCTCTGCGCCCTGTCTGCTTCTGCTCCCTTCCAG 300  
Db 241 ACACCGGCGCCCTGACACAGAGCCCTCTGCGCCCTGTCTGCTTCTGCTCCCTTCCAG 300  
Qy 301 AAAACCTACAGGCGAGTACGGTTTCCGTCTGGGCTTCTTGCATCTGGGACAGCAAG 360  
Db 301 AAAACCTACAGGCGAGTACGGTTTCCGTCTGGGCTTCTTGCATCTGGGACAGCAAG 360  
Qy 361 TCTGTGACTTGCAGTCTCCCTGCTCCCTCAACAGATGTTTGGCAAGTGTGCTGCAAGNCC 420  
Db 361 TCTGTGACTTGCAGTCTCCCTGCTCCCTCAACAGATGTTTGGCAAGTGTGCTGCAAGNCC 420

QY 421 TGCCCTGTGAGCTGTGGGTGATTCACACCCCGCCCGGCAACCCCGCTCCGCGCATG 480  
 Db |||||  
 QY 421 TGCCCTGTGAGCTGTGGGTGATTCACACCCCGCCCGGCAACCCCGCTCCGCGCATG 480  
 Db |||||  
 QY 481 GCCATCTACAGCAGTACACAGCAGTACGAGAGTTGTGAGGCGCTGCCGCCACCATGAG 540  
 Db |||||  
 QY 481 GCCATCTACAGCAGTACACAGCAGTACGAGAGTTGTGAGGCGCTGCCGCCACCATGAG 540  
 Db |||||  
 QY 541 CGCTGTCTAGATAGCAGTGTCTGGCCCTCTCCCTCAGCATCTTATCCGAGTGGAGGAAT 600  
 Db |||||  
 QY 541 CGCTGTCTAGATAGCAGTGTCTGGCCCTCTCCCTCAGCATCTTATCCGAGTGGAGGAAT 600  
 Db |||||  
 QY 601 TTCCGTGTGAGTATTGTGATGACGAAACACTTTTCGACATAGTGTGGTGGCCCTAT 660  
 Db |||||  
 QY 601 TTCCGTGTGAGTATTGTGATGACGAAACACTTTTCGACATAGTGTGGTGGCCCTAT 660  
 Db |||||  
 QY 661 GAGCCGCCCTGAGGCTGCGCTCTGACTGTACCAACCATCCACTACATGATGTAAAGT 720  
 Db |||||  
 QY 661 GAGCCGCCCTGAGGCTGCGCTCTGACTGTACCAACCATCCACTACATGATGTAAAGT 720  
 Db |||||  
 QY 721 TCTGTCATGGCGGATGAAACCGAGGCGCCATCTCACCATCATCATCACTGGAAGTCC 780  
 Db |||||  
 QY 721 TCTGTCATGGCGGATGAAACCGAGGCGCCATCTCACCATCATCATCACTGGAAGTCC 780  
 Db |||||  
 QY 781 AGTGGTAACTACTGAGGAGCGAAGCTTTGAGGTGCGTGTGTGCTGTCTCTGGAGA 840  
 Db |||||  
 QY 781 AGTGGTAACTACTGAGGAGCGAAGCTTTGAGGTGCGTGTGTGCTGTCTCTGGAGA 840  
 Db |||||  
 QY 841 GACCCGCGCACAGAGAGAGAGTCTCCGCAAGAGGAGGAGCTCACACAGTGCCTCC 900  
 Db |||||  
 QY 841 GACCCGCGCACAGAGAGAGAGTCTCCGCAAGAGGAGGAGCTCACACAGTGCCTCC 900  
 Db |||||  
 QY 901 CCAGGAGCACTTAAGCGAGCACTGCGCCCAACACACAGCTCTCTCCCGAGCAAGAG 960  
 Db |||||  
 QY 901 CCAGGAGCACTTAAGCGAGCACTGCGCCCAACACACAGCTCTCTCCCGAGCAAGAG 960  
 Db |||||  
 QY 961 AAACCACTGGATGAGAGATATTTACCTTCAGATCCGTGGCGGTGAGCGCTTCAGATG 1020  
 Db |||||  
 QY 961 AAACCACTGGATGAGAGATATTTACCTTCAGATCCGTGGCGGTGAGCGCTTCAGATG 1020  
 Db |||||  
 QY 1021 TTCCGAGAGCTGAATGAGGCTTGGAACTCAAGATGCCAGGTGGGAAAGCAGCGG 1080  
 Db |||||  
 QY 1021 TTCCGAGAGCTGAATGAGGCTTGGAACTCAAGATGCCAGGTGGGAAAGCAGCGG 1080  
 Db |||||  
 QY 1081 GGGAGCAGGGCTCACTCCAGCCACTGAAAGTCCAAAGAGGTCACTTACCTCCGCGCAT 1140  
 Db |||||  
 QY 1081 GGGAGCAGGGCTCACTCCAGCCACTGAAAGTCCAAAGAGGTCACTTACCTCCGCGCAT 1140  
 Db |||||  
 QY 1141 AAAAATCTCATTTCAAGACAGAGAGGCGCTGACTCAGAC 1179  
 Db |||||  
 QY 1141 AAAAATCTCATTTCAAGACAGAGAGGCGCTGACTCAGAC 1179  
 Db |||||

## RESULT 11

AAQ67884/c  
 ID AAQ67884 standard; DNA; 1182 BP.

XX AAQ67884;

AC AAQ67884;

DT 25-MAR-2003 (revised)

DT 23-MAR-1995 (first entry)

DE Human p53 DNA.

XX Polymerase chain reaction; primer; amplify; NVVAC; ALVAC; recombinant;  
 KW murine; interleukin-2; IL-2; pR825; pmut-1; PBS-SK; pMM151; TK vector;  
 KW plasmid; vaccinia; H6 promoter; amplify; primer; antigenic response;  
 KW polymerase chain reaction; poxvirus; p8D542; immunological response;  
 KW pathogen; human; interferon; IFN; ss.  
 XX Synthetic.

PN WO9416716-A1.

XX 04-AUG-1994.

XX 21-JAN-1994; 94WO-US000888.

XX 21-JAN-1993; 93US-00007115.

XX 19-JAN-1994; 94US-00184009.

XX (VIRO-) VIROGENETICS CORP.

XX Paoletti E, Tartaglia J, Cox WI;

XX WPI; 1994-263767/32.

XX Attenuated recombinant virus used for cancer therapy - comprises DNA

XX encoding cytokine and/or tumour associated antigen.

XX Example 32; Fig 39; 232pp; English.

XX This sequence represents the wildtype human p53 gene from the translation

XX initiation codon to the stop codon. This sequence was used in the

XX construction of an ALVAC-based recombinant virus containing a mutant form

XX of the human p53 gene. The mutant form has a G>A substitution at position

XX 524, changing an Arg residue at position 175 to a His residue. The

XX plasmid pMM110 (see also AAQ67864) contains the vaccinia H6 promoter and

XX the wild type human p53 gene in the ALVAC C5 insertion site. The mutant

XX p53 gene was obtained from plasmid Cx22A and cloned into pMM110 to

XX generate pMM143. Recombination between pMM143 and ALVAC rescuing virus

XX produced recombinant virus VCP270, which contains the vaccinia H6

XX promoted mutated human p53 in the C5 locus. The resulting virus may be

XX used in a composition for inducing an antigenic or immunological

XX response, ie. for immunisation against pathogens. (Updated on 25-MAR-2003

XX to correct PN field.)

XX Sequence 1182 BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;

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XX	AAH19387/C	AAH19387 standard; cDNA; 1182 BP.
XX	AAH19387;	
XX	03-AUG-2001 (first entry)	
XX	p53 coding sequence.	
XX	Cytostatic; gene therapy; p53; tumour; ss.	
XX	Unidentified.	
XX	JP2000354488-A.	
XX	26-DEC-2000.	
XX	09-APR-1999; 99JP-00139034.	
XX	09-APR-1999; 99JP-00139034.	
XX	(IKAW/) IKAWA H.	
XX	(SAXA ) OTSUKA PHARM CO LTD.	
XX	WPI; 2001-268293/28.	
XX	P-PSDB; AAB84836.	
XX	Chimera gene of the p53 family, useful for gene therapy, and treatment of cancer, comprises a transcription activating region and a DNA binding region.	
XX	Disclosure; Fig 2; 57pp; Japanese.	
XX	The present invention relates to a chimera gene of p53 family encoding a transcription activating region, a DNA binding region, and an oligomer formation region of different p53 family proteins. The chimeric gene can be used for gene therapy of p53 variant human tumours, and analysis of the function of the p53 family gene. The present sequence was used in the present invention	
XX	Sequence 1182 BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;	
XX	Query Match	2.3%; Score 26.6; DB 1; Length 1182;
XX	Best Local Similarity	51.2%; Pred. No. 12;
XX	Matches	62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;
QY	174 AGGTCCAGATGAGCTCCAGATGCCAGAGGTGCTCCCGCTGGCCCTGCACACGAC	233
DB	294 AGGGACACGAAGATCACAGGGGCCAGAGGGGGTGGTGACAGGGCCCGGTGTAGGAC	235
QY	234 AGCTCTACACGGGGGCCCTGTGCACACAGCCCTCTCTGGCCCTGTGTCATCTTGTCCC	293
DB	234 TCGTGGTGAGGGGCCACGCGGGGAGCAGCTCTGGCATTCTGGGAGCTTCATCTGGACC	175
QY	294 T 294	
DB	174 T 174	

RESULT 14  
ADC35154/c  
ID ADC35154 standard; cDNA; 1182 BP.  
XX  
XX  
AC ADC35154;  
XX  
XX 18-DEC-2003 (first entry)  
XX  
XX Human breast cancer antigen polynucleotide seq id 38.  
DE  
DE  
XX  
XX breast cancer: breast cancer diagnosis; breast cancer antigen; gene; ss.  
KW

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XX OS Homo sapiens.
XX PN US2003108888-A1.
XX PD 12-JUN-2003.
XX PF 15-MAY-2002; 2002US-00146473.
XX PR 15-MAY-2001; 2001US-0291150P.
XX PA (LUDW-) LUDWIG INST CANCER RES.
XX PI Scanlan MJ, Gout I, Stockert E, Old LJ, Gure A, Chen Y;
XX WPI; 2003-829337/77.
XX DR P-PSDB; ADC35112.
XX PT Diagnosing breast cancer in subject by obtaining biological sample from
XX PT subject, contacting sample with breast cancer-associated polypeptides,
XX PT determining specific binding between polypeptides and agents in sample.
XX PS Claim 1; SEQ ID NO 38; 173pp; English.
XX CC The invention describes a method of diagnosing breast cancer in subject
XX CC comprising contacting biological sample from subject with at least two
XX CC different breast cancer-associated polypeptides (I) encoded by nucleic
XX CC acid molecules (II) comprising sequence chosen from 42 fully defined
XX CC sequences as given in specification, determining specific binding between
XX CC (I) and agents in sample, where presence of the binding is diagnostic for
XX CC breast cancer. The method is useful for diagnosing breast cancer in a
XX CC subject. The sample is blood, lymph node fluid or breast discharge fluid.
XX CC This sequence encodes a breast cancer antigen.
XX SQ Sequence 1182 BP; 276 A; 364 C; 308 G; 234 T; 0 U; 0 Other;

Query Match      2.3%; Score 26.6; DB 1; Length 1182;
Best Local Similarity 51.2%; Pred. No. 12;
Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;

QY 174 AGGTCCAGATGAAGTCCAGATCCAGAGGCTGCTCCCGCGTGGCCCTGCACGAC 233
Db |||||
QY 294 AGGACAGAGATGACAGGGGCCAGAGGGGCTGGTGCAGGGGCCCGGTGTAGGAGC 235
Db |||||
QY 234 AGCTCTACACCGGGCCCTGTGCACGACGCCCCCTCTGGGCCCTGTCTCTGTGTC 293
Db |||||
QY 234 TGCTGTCTCAGGGGCCACCGGGGAGGAGCCTCTGSCATCTGGGAGCTTCATCTG 175
QY 294 T 294
Db 174 T 174

RESULT 15
AAZ08435/c
ID AAZ08435 standard; DNA; 1484 BP.
AC AAZ08435;
XX
XX 19-OCT-1999 (first entry)
XX H6/p53 (wildtype) expression cassette and flanking regions from vCP207.
XX Attenuated recombinant virus; cytokine; tumour associated antigen;
XX NVAC recombinant virus; ALVAC recombinant virus; gene therapy; rabies;
XX cancer; tumour necrosis factor; nuclear phosphoprotein; p53; IL-2; GM-CSF;
XX interleukin; interferon; IFN-gamma; IL-4; melanoma associated antigen;
XX carcinoembryonic antigen; immunisation; antigenic; poxvirus; influenza;
XX immunological response; immunotherapy; vaccine; Newcastle Disease; ss.
XX Synthetic.
XX OS Homo sapiens.
XX OS Vaccinia virus.

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XX US5942235-A.
XX PN 24-AUG-1999.
XX PD 02-JUN-1995; 95US-00458356.
XX PF 24-DEC-1981; 81US-00334456.
XX PR 08-DEC-1982; 82US-00446824.
XX PA 19-JUN-1984; 84US-00622135.
XX PI 27-AUG-1987; 87US-00090209.
XX WPI 28-AUG-1987; 87US-00090711.
XX DR 20-OCT-1987; 87US-00110335.
XX PT 25-APR-1988; 88US-00186054.
XX PT 23-AUG-1988; 88US-00234390.
XX PR 14-JUN-1990; 90US-00537882.
XX PR 14-JUN-1990; 90US-00537890.
XX PR 16-DEC-1991; 91US-00805567.
XX PR 03-MAR-1992; 92US-00847977.
XX PR 06-MAR-1992; 92US-00847951.
XX PR 04-MAY-1992; 92US-00881995.
XX PR 22-JUL-1992; 92US-00918278.
XX PR 20-JAN-1993; 93US-00007115.
XX PR 19-JAN-1994; 94US-00184009.
XX PR 14-APR-1994; 94US-00228926.
XX PR 13-SEP-1994; 94US-00306259.
XX PA (HEAL-) HEALTH RES INC.
XX PI Paoletti E;
XX WPI; 1999-493494/41.
XX PT Recombinant poxviruses comprising exogenous DNA encoding antigenic
XX PT determinants useful in immunotherapy to immunize against cancers and
XX PT other diseases such as influenza, Newcastle Disease and rabies.
XX PS Example 15; Fig 18; 163pp; English.
XX CC The present invention describes a recombinant poxvirus (I), comprising
XX CC exogenous DNA encoding an antigenic determinant of a pathogen which is
XX CC then expressed in vivo in infected host cells after administration to a
XX CC patient and therefore induces an immunological response. (I) may be used
XX CC to vaccinate patients against a wide range of diseases and disorders
XX CC depending on the type of antigen encoded by the exogenous DNA. (I) may be
XX CC used to vaccinate against diseases such as rabies, influenza and
XX CC Newcastle Disease. It is particularly useful for immunising against
XX CC cancers. The poxvirus (I) also provides a means of manipulating
XX CC lymphocytes and tumour cells for use in cell-based immunotherapeutic
XX CC modalities for cancer. (I) also have enhanced safety compared to
XX CC unattenuated viruses (attenuation reduces the virulence of the viruses)
XX CC and known recombinant poxvirus vaccines. This increased level of safety
XX CC reduces the possibility of a 'runaway' infection in the host and reduces
XX CC the chance of transmission from vaccinated to unvaccinated individuals
XX CC and contamination of the environment. The present sequence represents a
XX CC H6/p53 (wildtype) expression cassette and flanking regions from vCP207
XX CC used in the exemplification of the present invention
XX SQ Sequence 1484 BP; 367 A; 416 C; 371 G; 330 T; 0 U; 0 Other;

Query Match      2.3%; Score 26.6; DB 1; Length 1484;
Best Local Similarity 51.2%; Pred. No. 9;
Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;

QY 174 AGTTCAGATGAGTCCAGATGCCAGAGGCTGCTCCCGGTGGCCCTGCACGAC 233
Db |||||
QY 526 AGGACAGAGATGACAGGGGCCAGAGGGGCTGGTGCAGGGGCCCGGTGTAGGAGC 467
Db |||||
QY 234 AGCTCTACACCGGGGCCCTGTGCACGACGCCCCCTCTGGGCCCTGTCTCTGTGTC 293
Db |||||
QY 466 TGCTGTCTCAGGGGCCACCGGGGAGGAGCCTCTGSCATCTGGGAGCTTCATCTG 407
QY 294 T 294

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Db 406 T 406

Search completed: September 28, 2004, 12:07:34  
Job time : 18 secs